# STATE OF NORTH CAROLINA **DEPARTMENT OF TRANSPORTATION**



#### **DIVISION 11 DISTRICT 1**

## **CONTRACT PROPOSAL**

## SMALL BUSINESS ENTERPRISE PROJECT

WBS ELEMENT I	NUMBER:	Various	CONTI	RACT:	11-01-726
ROUTE: Various	S		COUNTY	: Alle	eghany, Surry, Yadkin
DESCRIPTION:	Installation	of Various	Erosion Contro	ol Meas	ures upon request in
<u>-</u>	Alleghany,	Surry and Ya	adkin Counties		
BID OPENING:	April 30, 20	015 @ 10:00	AM		
NOTICE:					
PRACTICE OF GENERAL STATES OF ANY NON-FER FOR CERTAL SBE PROJECT LAWS REGULAIR CONDITIONS	OF GENERAL CATUTES OF Y THE N.C. L CDERAL AID N SPECIALT T. BIDDERS LATING THE FIONING AN	CONTRACTION ORTH CARO ICENSING BOA PROJECT WHAT Y WORK AS D S SHALL ALSO PRACTICES D REFRIGER	NG AS CONTAINING AS CONTAINING WHICH RE ARD FOR CONTRAINERE THE BID IS DETERMINED BY COMPLY WITH OF ELECTRICAL,	ED IN C QUIRES ACTORS \$30,000 THE LIC I ALL O PLUMB CTING	S REGULATING THE HAPTER 87 OF THE THE BIDDER TO BE WHEN BIDDING ON OR MORE, EXCEPT CENSING BOARD OR OTHER APPLICABLE BING, HEATING AND AS CONTAINED IN A.
NAME OF BIDDER			N.C. CONTRA	CTOR'S LI	ICENSE NUMBER
ADDRESS OF BIDDER					

## **RETURN BIDS TO:**

QUOTE NO: 11-01-726 –DISTRICT 1 EROSION CONTROL MEASURES N.C. DEPARTMENT OF TRANSPORTATION JOE L. LAWS, PE, DIVISION PROJECT MANAGER 801 STATESVILLE ROAD P.O. BOX 250 NORTH WILKESBORO, NORTH CAROLINA 28659

## INSTRUCTIONS TO BIDDERS

## PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE PREPARING AND SUBMITTING YOUR BID.

All bids shall be prepared and submitted in accordance with the following requirements. Failure to comply with any requirement shall cause the bid to be considered irregular and shall be grounds for rejection of the bid.

- The bid sheet furnished by NCDOT with the proposal shall be used and shall not be altered in any manner. DO NOT SEPARATE THE BID SHEET FROM THE PROPOSAL!
- 2. All entries on the bid sheet, including signatures, shall be written in ink.
- **3.** The Bidder shall submit a unit price for every item on the bid form. The unit prices for the various contract items shall be written in figures.
- **4.** An amount bid shall be entered on the bid sheet for every item. The amount bid for each item shall be determined by multiplying each unit bid by the quantity for that item, and shall be written in figures in the "Amount Bid" column of the sheet.
- 5. The total amount bid shall be written in figures in the proper place on the bid sheet. The total amount shall be determined by adding the amounts bid for each item.
- **6.** Changes in any entry shall be made by marking through the entry in ink and making the correct entry adjacent thereto in ink. A representative of the Bidder shall initial the change in ink.
- 7. The bid shall be properly executed. All bids shall show the following information:
  - a. Name of individual, firm, corporation, partnership, or joint venture submitting bid.
  - b. Name and signature of individual or representative submitting bid and position or title.
  - c. Name, signature, and position or title of witness.
  - d. Contractor's License Number (if Applicable)
- **8.** Bids submitted by corporations shall bear the seal of the corporation.
- **9.** The bid shall not contain any unauthorized additions, deletions, or conditional bids.
- **10.** The bidder shall not add any provision reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
- 11. THE PROPOSAL WITH THE BID SHEET STILL ATTACHED SHALL BE PLACED IN A SEALED ENVELOPE AND SHALL HAVE BEEN DELIVERED TO AND RECEIVED IN THE DIVISION ENGINEER'S OFFICE AT 801 STATESVILLE ROAD, P.O. BOX 250, NORTH WILKESBORO, NORTH CAROLINA 28659 BY 10:00 AM ON APRIL 30, 2015.
- 12. The sealed bid must display the following statement on the front of the sealed envelope:

#### QUOTE NO. 11-01-726 - DISTRICT 1 EROSION CONTROL MEASURES

13. If delivered by mail, the sealed envelope shall be placed in another sealed envelope and the outer envelope shall be addressed as follows:

JOE L. LAWS, PE, DIVISION PROJECT MANAGER

N.C. DEPARTMENT OF TRANSPORTATION
P.O. BOX 250
801 STATESVILLE ROAD
NORTH WILKESBORO, NORTH CAROLINA 28659

#### AWARD OF CONTRACT

The award of the contract, if it be awarded, will be made to the lowest responsible Bidder in accordance with Section 102 of the 2012 Standard Specifications for Roads and Structures. The lowest responsible Bidder will be notified that his bid has been accepted and that he has been awarded the contract. NCDOT reserves the right to reject all bids.

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## **DIVISION CONTRACT**

## **General Provisions**

#### **GENERAL**

## This is a Small Business Enterprise Project.

This contract is for the installation of various erosion control measures in Alleghany, Surry and Yadkin Counties under the provisions of North Carolina Department of Transportation's Small Business Enterprise Program. Your firm does not have to be formally identified as a minority, woman, or disadvantaged business to qualify for this program, but your business must have had an annual income of \$1,500,000 or less for the previous calendar year (not including costs for materials). Under the provisions of this Program, contract payment and contract performance bonds are not required.

You must be registered as a Small Business Enterprise through the North Carolina Department of Transportation Contractual Services Unit to be eligible to bid on any SBE project. For more information on becoming registered with the Department, please contact the Office of Contractual Services at (919) 733-5616.

<u>Please be advised that Item Unit Prices will be used to determine the lowest acceptable bidder.</u> Actual Item Quantities will vary and will be determined based upon the amount of <u>erosion control measures required.</u>

All work and materials shall be in accordance with the provisions of the General Guidelines of this contract, the Project Special Provisions, the *North Carolina Department of Transportation Standard Specifications for Roads and Structures*, the *North Carolina Department of Transportation Roadway Standards Drawings*, and the current edition of the *Manual of Uniform Traffic Control Devices (MUTCD)*. These manuals may be found on the internet at:

http://www.ncdot.gov/doh/preconstruct/ps/specifications/2012draft.pdf

http://www.ncdot.gov/doh/preconstruct/ps/std draw/default.html

http://mutcd.fhwa.dot.gov/

#### SITE INVESTIGATION AND REPRESENTATION

By signing the proposal documents, the Contractor acknowledges that:

- (A) He understands the nature of the work and general and local conditions, particularly those bearing on transportation;
- (B) He is familiar with the availability and cost of labor and materials;

- (C) He will to adhere to State regulations for safety and security of property, roads, and facilities;
- (D) He is able to prosecute the work in accordance with all applicable local, state and federal rules and regulations, and;
- (E) He has thoroughly investigated the project site(s).

Any failure on the part of the Contractor to acquaint himself with all available information shall not relieve him from the responsibility any aspect of the contracting process. No adjustment in contract time or contract prices will be made due to the Contractor's negligence in familiarizing himself with the contract or project site(s).

## **CONTRACT TIME AND LIQUIDATED DAMAGES**

This contract shall be effective May 15, 2015. Work requests will be made on an as-needed basis; therefore each request will have its own date of availability and required completion date.

All work will be done at the request of the Engineer. Notification will be made via fax and will include the location of the work, description of the work to be performed, and the approximate quantities required. Each work request may consist of multiple locations within a general work area. Each notification will be considered a separate and independent project.

An intermediate contract time of **seven** (7) **calendar days** from notification will apply to each work request for **Routine Installation of Erosion Control Measures**. In the event that the Contractor fails to respond to location(s) requested by the Engineer within **seven** (7) **calendar days**, liquidated damages in the amount of **Five Hundred Dollars** (\$500.00) **per working day, or a portion thereof, per work request,** will be deducted from the monies due to the Contractor. No extensions will be authorized except as authorized by Article 108-10 of the 2012 Standard Specifications.

An intermediate contract time of **twenty-four** (24) **hours** from notification will apply to each work request for **Emergency Installation of Erosion Control Measures**. In the event that the Contractor fails to respond to location(s) requested by the Engineer within **twenty-four** (24) **hours**, liquidated damages in the amount of **One Thousand Dollars** (\$1,000.00) **per calendar day, or a portion thereof, per work request,** will be deducted from the monies due to the Contractor. No extensions will be authorized except as authorized by Article 108-10 of the 2012 *Standard Specifications*.

No work will be permitted and no contract will be executed until all prerequisite conditions and certifications have been satisfied.

## **TERM OF THE CONTRACT**

The contractor shall submit his bid for one year. At the option of the Department, this contract may be extended two (2) additional periods of one (1) year each (maximum of three (3) years total). The unit bid price will be increased by **five** (5) **percent** for each one-year extension. No changes in the terms, conditions, etc. of this contract will be made when an extension of the contract is implemented. The Engineer will notify the Contractor in writing by **March 1, 2016** if the contract may be extended. The Contractor must notify the Engineer in writing by **March 31, 2016** of his acceptance or rejection of this offer. Failure on the part of the Contractor to reply will be received as a rejection of contract extension.

The period covered by this contract will be from May 15, 2015 until May 14, 2016.

## **NO MAJOR CONTRACT ITEMS**

None of the items included in this contract will be major items.

## **NO SPECIALTY ITEMS**

None of the items included in this contract will be specialty items (see Article 108-6 of the 2012 Standard Specifications).

#### PREPARATION AND SUBMISSION OF BIDS

The entire bid proposal package, properly signed and executed, must be returned in order for the bid to be considered as responsive. **Incomplete proposal packages may be considered unresponsive.** Bid proposals shall be completed in ink and any corrections shall have one strike through with the correction initialed by the bidder.

Effective July 1, 2014, Division Let contracts should only be awarded to firms listed in the Directory of Transportation Firms as either a Bidder or PO Prime Contractor. After this date, firms that are prequalified as subcontractors only cannot bid on Division Let projects. Applications and details on becoming a prequalified Bidder or PO Prime Contractor can be found at: https://connect.ncdot.gov/business/Prequal/Pages/default.aspx

Any firm that wishes to bid on this project as the prime contractor must be prequalified for the type of work they wish to perform prior to submitting their bid.

All bids shall be prepared and submitted in accordance with the listed requirements of Article 102-8 of the 2012 Standard Specifications.

In accordance with GS 136-28.10, if the total bid amount of the contract exceeds \$500,000, the bid will not be considered for award.

#### **BID BOND**

A Bid Bond is not required for the submission of bids for this project.

#### EXECUTION OF SIGNATURE SHEETS AND DEBARMENT CERTIFICATION

The Bidder's attention is directed to the various sheets in the contract proposal, which are to be completed and/or signed by the Bidder. A list of these sheets is shown below. The signature sheets are located behind the Bid Form(s) in the contract proposal.

- 1. Execution of Bid including Non-Collusion Affidavit, Debarment Certification, & Gift Ban
- 2. MBE/WBE/DBE Subcontract Listing Form

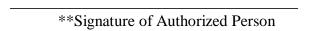
The Bidder shall certify his and to the best of his knowledge all subcontractors, material suppliers and vendors utilized herein current status concerning suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency, in accordance with the "Debarment Certification" located behind the signature sheets in the proposal forms. Execution of the bid signature sheets in conjunction with any applicable statements concerning exceptions, when such statements have been made on the "Debarment Certification", constitutes the Bidders certification of "status" under penalty of perjury under the laws of the United States.

## **AWARD LIMITS ON MULTIPLE PROJECTS**

contracts, the value of which will not exceed a total
, for those projects
ed on the same date as shown in the Proposal Form.
g the project number and county in the appropriate
subject to an award limit.
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(County)
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(County)

It is agreed that in the event that I am (we are) the successful bidder on indicated projects, the total value of which is more that the above stipulated award limits, the Board of Transportation will award me (us) projects from among those indicated which have a total value not exceeding the award limit and which will result in the best advantage to the Department of Transportation.

<sup>\*</sup>If a Proposer desires to limit the total amount of work awarded to him in this letting, he shall state such limit in the space provided above in the second line of this form.



\*\*Only those persons authorized to sign bids under the provisions of Article 102-8, Item 7, shall be authorized to sign this form.

#### **WORKMEN'S COMPENSATION INSURANCE**

The contractor shall defend, indemnify and hold harmless the North Carolina Department of Transportation, its officers and employees from any claim, demand, suit, liability, judgment and expense (including attorney's fees and other costs of litigation) arising out of or relating to injury, disease, or death of persons or damage to or loss of property resulting from or in connection with the negligent performance of this contract by the contractor, its agents, employees, and subcontractors or any one for whom the contractor may be responsible. The obligations, indemnities and liabilities assumed by the contractor under this paragraph shall not extend to any liability caused by the negligence of the Department of Transportation or its employees. The contractor's liability shall not be limited by any provisions or limits of insurance set forth in this contract.

The contractor shall indemnify and hold harmless the Department of Transportation from any claim, demand, suit, liability, judgment, and expense involving damage or loss to the contractor's equipment (including vandalism, theft, fire and acts of God) arising out of or relating to work performed under this agreement. The obligations, indemnities and liabilities assumed by the contractor under this paragraph shall not extend to any liability caused by the negligence of the Department of Transportation or its employees. The contractor's liability shall not be limited by any provisions or limits of insurance set forth in this contract.

The contractor further agrees to indemnify the Department of Transportation for any damages to the roadway, highway signs, highway equipment and other property owned or in possession of the Department of Transportation, brought about by reason of the negligent operation of the leased equipment. The contractor further agrees to indemnify and save harmless the Department of Transportation, its officers and employees from any claims or amounts recovered by any of the contractor's employees under the Worker's Compensation Act.

Pursuant to N.C.G.S. § 97-19, all contractors of the Department of Transportation are, prior to beginning services, required to show proof of coverage issued by a workers' compensation insurance carrier, or a certificate of compliance issued by the Department of Insurance for self-insured subcontractors stating that it has complied with N.C.G.S. § 97-93 irrespective of whether subcontractors have regularly in service fewer than three employees in the same business within the State of North Carolina, and subcontractors shall be hereinafter liable under the Workers' Compensation Act for payment of compensation and other benefits to its employees for any injury or death due to an accident arising out of and in the course of performance of the work insured by the subcontractor.

Proof of insurance shall be furnished to the Engineer prior to beginning work.

#### **LIABILITY INSURANCE**

Revise the 2012 Standard Specifications as follows:

Page 1-60, Article 107-15 LIABILITY INSURANCE, line 16, add the following as the second sentence of the third paragraph:

Prior to beginning services, all contractors shall provide proof of coverage issued by a workers' compensation insurance carrier, or a certificate of compliance issued by the Department of Insurance for self-insured subcontractors, irrespective of whether having regularly in service fewer than three employees.

#### **LICENSES**

Under the provisions of the North Carolina Department of Transportation's Small Business Enterprise Program, the contractor is **not required to possess a contractor's license** to perform work on this contract.

#### **SUBLETTING OF CONTRACT**

Revise the 2012 Standard Specifications as follows:

Page 1-66, Article 108-6 Subletting of Contract, line 37, add the following as the second sentence of the first paragraph:

All requests to sublet work shall be submitted within 30 days of the date of availability or prior to expiration of 20% of the contract time, whichever date is later, unless otherwise approved by the Engineer.

Page 1-67, Article 108-6 Subletting of Contract, line 7, add the following as the second sentence of the fourth paragraph:

Purchasing materials for subcontractors is not included in the percentage of work required to be performed by the Contractor. If the Contractor sublets items of work but elects to purchase material for the subcontractor, the value of the material purchased will be included in the total dollar amount considered to have been sublet.

#### **DEFAULT OF CONTRACT**

The Department of Transportation shall have the right to declare a default of contract for breach by the Contractor of any material term or condition of the contract. Default of contract shall be in accordance with the terms, conditions, and procedures of Article 108-9 of the 2012 Standard Specifications.

## **PARTIAL PAYMENT**

The Contractor may submit a request for payment at the end of each work request. Compensation for all pay items shall be in accordance with the *Standard Specifications*. One hundred percent (100%) payment shall be made after successful completion of the work as verified by the final inspection.

Requests for payment can be made on the form furnished to the Contractor by the Department of Transportation. The form shall be completely and legibly filled out with all appropriate information supplied and shall be signed by an authorized representative of the Contractor.

All invoice items and unit costs shall correspond to contract pay items. In the event of error or discrepancy in items or unit costs, the Department may return the invoice to the contractor for correction. Invoices must be "electronically scanned" by our office and the image is transmitted to the Purchasing Unit to verify payment. To avoid confusion and delay of payments each invoice should have a <u>Unique Invoice Number</u>, i.e. 1, 2, 3···. In addition, the invoice should be positively identified and associated with the Purchase Order by including the <u>Purchase Order Number</u> on the Invoice.

Minority Business Enterprise (MBE), Women's Business Enterprise (WBE) and/or Disadvantage Business Enterprise (DBE) participation shall be listed on the appropriate form (DBE-IS) and shall accompany all requests for payment. If there is no participation the word "None" or the figure "0" shall be entered. Requests for payment will not be processed without the submission of the DBE-IS form. One hundred percent (100%) payment shall be made after successful completion of the work as verified by the final inspection.

#### **RETAINAGE AND PROMPT PAYMENT**

<u>Prompt Payment of Monies Due Subcontractors, Second Tier Subcontractors and Material Suppliers and Release of Retainage</u>

Contractors at all levels; prime, subcontractor, or second tier contractor, shall within seven calendar days of receipt of monies, resulting from work performed on the project or services rendered, pay subcontractors, second tier subcontractors, or material suppliers, as appropriate. This seven-day period begins upon knowledgeable receipt by the contracting firm obligated to make a subsequent periodic or final payment. These prompt payment requirements will be met if each firm mails the payment to the next level firm by evidence of postmark within the seven-day period.

This provision for prompt payment shall be incorporated into each subcontract or second tier subcontract issued for work performed on the project or for services provided.

The Contractor may withhold up to 3% retainage if any subcontractor does not obtain a payment and performance bond for their portion of the work. If any retainage is held on subcontractors, all retainage shall be released within seven calendar days of satisfactory completion of all work. For the purpose of release of retainage, satisfactory completion is defined as completion of all physical

elements and corresponding documentation as defined in the contract, as well as agreement between the parties as to the final quantities for all work performed in the subcontract. The Department will provide internal controls to expedite the determination and processing of the final quantities for the satisfactorily completed subcontract portions of the project.

Failure of any entity to make prompt payment as defined herein may result in (1) withholding of money due to that entity in the next partial payment until such assurances are made satisfactory to this provision; or (2) removal of an approved contractor from the prequalified bidders list or the removal of other entities from the approved subcontractors list.

#### MANDATORY SUBCONTRACTOR INFORMATION

The Contractor is to provide a list of all proposed subcontractors he or she plans to use on this project. This list shall include all subcontractors that will be used, not only MBE, WBE or DBE firms. Only pre-approved subcontractors that are registered with the NCDOT may be used. A listing of all contractors (prime or subcontractor) may be found at the following website: <a href="https://partner.ncdot.gov/VendorDirectory/default.html">https://partner.ncdot.gov/VendorDirectory/default.html</a>

Subcontract Approval Form (Form SAF) must be completed for each subcontractor that will be used and returned <u>prior to the work being performed by the subcontractor</u>. This form can be found at the following website:

http://www.ncdot.org/doh/operations/dp\_chief\_eng/constructionunit/saf.xls

If the proposed subcontractor cannot fulfill their obligation and a substitute must be used, then an appropriate form for the replacement subcontractor must delivered to the administrating officer before the new subcontractor is used.

## **AVAILIBILITY OF FUNDS – TERMINATION OF CONTRACTS**

General Statute 143C-6-11. (h) Highway Appropriation is hereby incorporated verbatim in this contract as follows:

(h) Amounts Encumbered. – Transportation project appropriations may be encumbered in the amount of allotments made to the Department of Transportation by the Director for the estimated payments for transportation project contract work to be performed in the appropriation fiscal year. The allotments shall be multiyear allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in *General Statute 143C-6-11(c)*. Payment for transportation project work performed pursuant to contract in any fiscal year other than the current fiscal year is subject to appropriations by the General Assembly. Transportation project contracts shall contain a schedule of estimated completion progress, and any acceleration of this progress shall be subject to the approval of the Department of Transportation provided funds are available. The State reserves the right to terminate or suspend any transportation project contract, and any transportation project contract shall be so terminated or suspended if funds will not be available for payment of the work to be performed during that fiscal year pursuant to the contract. In the event of termination of any contract, the contractor shall be given

a written notice of termination at least 60 days before completion of scheduled work for which funds are available. In the event of termination, the contractor shall be paid for the work already performed in accordance with the contract specifications.

Payment will be made on any contract terminated pursuant to the special provision in accordance with Article 108-13(E), of the *North Carolina Department of Transportation Standard Specifications for Roads and Structures, dated January 2012.* 

#### LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

#### Laws to be Observed

In accordance with 107-1 of the *Standard Specifications*, The Contractor shall keep himself fully informed of all Federal and State laws, all local laws, ordinances, and regulations, and all orders and decreed of bodies or tribunals having any jurisdiction or authority which may in any manner affect those engaged or employed in the work, or which in any way affect the conduct of the work. He shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall indemnify and hold harmless the Board of Transportation and the Department of Transportation and their agents and employees from any claim or liability arising from or based on the violation of any such law, ordinance, regulations, order, or decree, by the Contractor or by his agents and employees.

## **Responsibility For Damage Claims**

In accordance with 107-14 of the *Standard Specifications*, The Contractor shall indemnify and save harmless the Board of Transportation and its members and the Department of Transportation and its officers, agents, and employees from all suits, actions, or claims of any character brought for any injury or damages received or sustained by any person, persons, or property by reason of any act of the Contractor, Subcontractor, its agents or employees, in the performance of the contract.

### **Safety and Accident Protection**

In accordance with 107-21 of the *Standard Specifications*, The Contractor shall comply with all applicable Federal, State, and local laws, ordinances, and regulations governing safety, health, and sanitation, and shall provide all safeguards, safety devices, and protective equipment, and shall take any other needed actions, on his own responsibility that are reasonably necessary to protect the life and health of employees on the job and the safety of the public, and to protect property in connection with the performance of the work covered by the contract.

All Contractors' personnel, all subcontractors and their personnel, and any material suppliers and their personnel shall wear a reflective vest or outer garment conforming to the requirements of MUTCD at all times while on the project.

## **BANKRUPTCY**

The Department of Transportation, at its option, may terminate the contract upon the filing by the contractor of any petition for protection under the provisions of the Federal Bankruptcy Act.

#### **EXTENSION OF CONTRACT TIME**

Failure on the part of the Contractor to furnish bonds or certifications or to satisfy preliminary requirements necessary to issue the purchase order will not constitute grounds for extension of the contract time. If the Contractor has fulfilled all preliminary requirements for the issuance of a purchase order, and the purchase order authorization is not available by the date of availability, the Contractor shall be granted an extension equal to the number of calendar days the purchase order authorization is delayed after the date of availability.

#### CLAIMS FOR ADDITIONAL COMPENSATION OR EXTENSION OF TIME

Any claims for additional compensation and/or extensions of the completion date shall be submitted to the Division Engineer with detailed justification within thirty (30) days after receipt of the final invoice payment. The failure of the Contractor to submit the claim(s) within thirty days shall be a bar to recovery.

## CONTRACTOR CLAIM SUBMITTAL FORM

If the Contractor elects to file a written claim or requests an extension of contract time, it shall be submitted on the Contractor Claim Submittal Form (CCSF) available through the Construction Unit or http://ncdot.org/doh/operations/dp\_chief\_eng/constructionunit/formsmanuals/.

#### **PROSECUTION AND PROGRESS**

The Contractor will be required to prosecute the work in a continuous and uninterrupted manner from the time he begins the work until completion and final acceptance of the project. The contractor will not be permitted to suspend his operations except for reasons beyond his control except where the Engineer has authorized a suspension of the contractor's operations in writing.

The Contractor shall pursue the work diligently with workmen in sufficient numbers, abilities, and supervision, and with equipment, materials, and methods of construction as may be required to complete the work described in the contract by the completion date and in accordance with Section 108 of the *Standard Specifications*.

In the event that the Contractor's operations are suspended in violation of the above provisions, the sum of **Five Hundred Dollars** (\$500.00) will be charged the Contractor for each and every calendar day that such suspension takes place. The said amount is hereby agreed upon as liquidated damages due to extra engineering and maintenance costs and due to increased public hazard resulting from a suspension of the work. Liquidated damages chargeable due to

suspension of the work will be additional to any liquidated damages that may become chargeable due to failure to complete the work on time.

#### **TEMPORARY SUSPENSION OF WORK**

In accordance with Article 108-7 of the 2012 Standard Specifications, the Engineer will have the authority to suspend the work wholly or in part, any written order for such periods as he may deem necessary for any of the following reasons.

- 1. Conditions considered unfavorable for the suitable prosecution of the work, or
- 2. The Contractor's failure for correct conditions unsafe for workmen or the general public, or
- 3. The Contractor has not carried out orders given to him by the Engineer, or
- 4. The Contractor's failure to perform any provisions of the contract.

No extension of the completion date will be allowed for the above suspensions except as may be provided for in Article 108-10.

#### **AUTHORITY OF THE ENGINEER**

The Engineer for this project shall be the Division Engineer, Division 11, Division of Highways, North Carolina Department of Transportation, acting directly or through his duly authorized representatives.

The Engineer will decide all questions which may arise as to the quality and acceptability of work performed and as to the rate of progress of the work; all questions which may arise as to the interpretation of the contract; and all questions as to the acceptable fulfillment of the contract on the part of the Contractor. His decision shall be final, and he shall have executive authority to enforce and make effective such decisions and orders as the Contractor fails to carry out promptly.

#### APPROVAL OF PERSONNEL

The State shall have the right to approve or reject the project engineer and other supervisory personnel, assigned to a project.

The Engineers or any subcontractor for the Engineers which are employed to provide engineering services for this project shall not engage the services of any person or persons, now in the employment of the State during the time of this Agreement, without written consent of the State.

In the event of engagement, the Engineers or their subcontractors shall restrict such person or persons from working on any of the Engineers' contracted projects in which the person or

persons were formerly involved while employed by the State. This restriction period shall be for the duration of the contracted project with which the person or persons was involved. "Involvement" shall be defined as active participation in any of the following activities:

- Drafting the contract;
- Defining the scope of the contract;
- Selection of the Engineers' firm for services;
- Negotiation of the cost of the contract (including calculating man-hours or fees); and
- Administration of the contract.

An exception to these terms may be granted when recommended by the Secretary and approved by the Board of Transportation. Failure to comply with the terms stated above in this section shall be grounds for termination of this contract.

#### SUPERVISION BY CONTRACTOR

At all times during the life of the project the Contractor shall provide one permanent employee who shall have the authority and capability for overall responsibility of the project and who shall be personally available at the work site within 24 hours notice. Such employee shall be fully authorized to conduct all business with the subcontractors, to negotiate and execute all supplemental agreements, and to execute the orders or directions of the Engineer.

At all times that work is actually being performed, the Contractor shall have present on the project one competent individual who is authorized to act in a supervisory capacity over all work on the project, including work subcontracted. The individual who has been so authorized shall be experienced in the type of work being performed and shall be fully capable of managing, directing, and coordinating the work; of reading and thoroughly understanding the contract; and receiving and carrying out directions from the Engineer or his authorized representatives. He shall be an employee of the Contractor unless otherwise approved by the Engineer.

The Contractor may, at his option, designate one employee to meet the requirements of both positions. However, whenever the designated employee is absent from the work site, an authorized individual qualified to act in a supervisory capacity on the project shall be present.

#### **CONTRACTOR PERSONNEL**

The Department will not be responsible in any way to the Contractor's personnel for damages, destruction or loss, from any cause, to the Contractor's equipment, supplies, materials or tools or the personal property of the Contractor's personnel. The Contractor will be responsible for all repairs, regardless of cost, resulting from the negligence of the Contractor or Contractor's employees. The Department will not participate in the cost of such repairs.

## **INSPECTION**

All work shall be subject to inspection by the Engineer at any time. Routinely, the Engineer will make periodic inspections of the completed work. It will be the responsibility of the Contractor to keep the Engineer informed of his proposed work plan and to submit written reports of work accomplished on a frequency to be determined by the Engineer.

#### MATERIALS AND TESTING

The Engineer reserves the right to perform all sampling and testing in accordance with Section 106 of the *Standard Specifications* and the Department's "Materials and Test Manual." However the Engineer may reduce the frequency of sampling and testing where he deems it appropriate for the project under construction.

The Contractor shall furnish the applicable certifications and documentation for all materials as required by the *Standard Specifications*. Material that is not properly certified will not be accepted.

#### **COOPERATION BETWEEN CONTRACTORS**

The Contractor's attention is directed to Article 105-7 of the 2012 Standard Specifications.

The Contractor on this project shall cooperate with Contractor(s) and state forces working within or adjacent to the limits of this project to the extent that the work can be carried out to the best advantage of all concerned.

#### **RESOURCE CONSERVATION**

In accordance with North Carolina Executive Order 156, NCGS 130A-309.14(2), and NCGS 136-28.8, it is the policy of the Department to aid in the reduction of materials that become a part of our solid waste stream, to divert materials from landfills, and to find ways to recycle and reuse materials for the benefit of the Citizens of North Carolina.

Initiate, develop and use products and construction methods that incorporate the use of recycled or solid waste products in accordance with Article 104-13 of the 2012 Standard Specifications. Report the quantities of reused or recycled materials either incorporated in the project or diverted from landfills on the Project Construction Reuse and Recycling Reporting Form.

A location-based tool for finding local recycling facilities and the Project Construction Reuse and Recycling Reporting Form are available at:

http://connect.ncdot.gov/resources/Environmental/Pages/North-Carolina-Recycling-Locations.aspx

## **OUTSOURCING OUTSIDE THE USA**

All work on consultant contracts, services contracts, and construction contracts shall be performed in the United States of America. No work shall be outsourced outside of the United States of America.

*Outsourcing* for the purpose of this provision is defined as the practice of subcontracting labor, work, services, staffing, or personnel to entities located outside of the United States.

The North Carolina Secretary of Transportation shall approve exceptions to this provision in writing.

#### PLAN, DETAIL AND QUANTITY ADJUSTMENTS

The Department reserves the right to make, at any time during the progress of the work, such alterations in plans or the details of construction as may be found necessary or desirable by the Engineer to complete the project.

#### **POSTED WEIGHT LIMITS**

The Contractor's attention is directed to the fact that many primary and secondary roads and bridges are posted with weight limits less than the legal limit. The Contractor will not be allowed to exceed the posted weight limits in transporting materials or equipment to the project. The Contractor should make a thorough examination of all maps and haul routes on this project.

#### LOCATING EXISTING UNDERGROUND UTILITIES

Revise the 2012 Standard Specifications as follows:

### Page 1-43, Article 105-8, line 28, after the first sentence, add the following:

Identify excavation locations by means of pre-marking with white paint, flags, or stakes or provide a specific written description of the location in the locate request.

#### **UTILITY CONFLICTS**

It shall be the responsibility of the Contractor to contact all affected utility owners and determine the precise locations of all utilities prior to beginning construction. Utility owners shall be contacted a minimum of 48 hours prior to the commencement of operations. Special care shall be used in working around or near existing utilities, protecting them when necessary to provide uninterrupted service. In the event that any utility service is interrupted, the Contractor shall notify the utility owner immediately and shall cooperate with the owner, or his representative, in

the restoration of service in the shortest time possible. Existing fire hydrants shall be kept accessible to fire departments at all times.

The Contractor shall adhere to all applicable regulations and follow accepted safety procedures when working in the vicinity of utilities in order to insure the safety of construction personnel and the public.

The Contractor shall coordinate any work with the individual utility companies, prior to any debris removal that may directly affect the utilities.

## GIFTS FROM VENDORS AND CONTRACTORS

By Executive Order 24, issued by Governor Perdue, and *N.C. G.S.* § 133-32, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offer or, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e. Administration, Commerce, Correction, Crime Control and Public Safety, Cultural Resources, Environment and Natural Resources, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who:

- (1) have a contract with a governmental agency; or
- (2) have performed under such a contract within the past year; or
- (3) anticipate bidding on such a contract in the future.

For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and G.S. § 133-32.

Executive Order 24 also encouraged and invited other State Agencies to implement the requirements and prohibitions of the Executive Order to their agencies. Vendors and contractors should contact other State Agencies to determine if those agencies have adopted Executive Order 24.

## **Special Provisions**

## **NOTES TO CONTRACTOR**

- 1. Refer to the Standard Specifications for Roads and Structures and Roadway Standard Drawings dated January 2012 and any Special Provisions in contract for guidelines on this project.
- 2. All work performed by the contractor shall be in compliance with the 2012 Standard Specifications and Workmanship/Appearance done to the satisfaction of the Engineer.
- 3. All work items necessary to complete the work other than listed on the "Bid Proposal Form" will be considered incidental in nature and no further compensation will be made. Any work performed in an unsatisfactory manner could be basis for cancellation of the contract.
- 4. Quantities included in this contract will vary and will be determined by the actual amount of "Erosion Control Measures" required.
- 5. Any damage to adjacent shoulders, medians, paved areas or other facilities shall be repaired or replaced by the Contractor to the satisfaction of the Engineer.

#### STATE HIGHWAY ADMINISTRATOR TITLE CHANGE

Revise the 2012 Standard Specifications as follows:

Replace all references to "State Highway Administrator" with "Chief Engineer".

#### **EMPLOYMENT**

Revise the 2012 Standard Specifications as follows:

Page 1-20, Subarticle 102-15(O), delete and replace with the following:

(O) Failure to restrict a former Department employee as prohibited by Article 108-5.

Page 1-65, Article 108-5 Character of Workmen, Methods, and Equipment, line 32, delete all of line 32, the first sentence of the second paragraph and the first word of the second sentence of the second paragraph.

## **CONTRACT BID QUANTITIES**

The quantities shown in the itemized proposal for the project are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the quantity of any item or portion of the work as may be deemed necessary or expedient.

An increase or decrease in the quantity of any item will not be regarded as sufficient ground for an increase or decrease in the unit prices, nor in the time allowed for the completion of the work, except as provided for the contract.

Contractor's pricing shall be based on the estimated quantities per Division. These estimated amounts are submitted to assist contractors in the bidding process. Estimated quantities are not to be regarded as actual requirements. The State shall not be obligated to purchase any specific quantity.

#### HOURS OF WORK

The Contractor's operations are restricted to daylight hours. No work may be performed on Saturdays, Sundays, and Official State Holidays unless **approved by the Engineer**. Work shall only be performed when weather and visibility conditions allow safe operations.

#### **SUBSURFACE INFORMATION**

There is no subsurface information available on this project. The Contractor shall make his own investigation of subsurface conditions.

#### **DRIVEWAYS AND PRIVATE PROPERTY**

The Contractor shall maintain access to driveways for all residents and property owners throughout the life of the project.

The Contractor shall not perform work for private citizens or agencies in conjunction with this project or within the project limits of this contract.

#### **MOBILIZATION**

The contractor will be notified of the required "Installation of Erosion Control Measures" by the Engineer and shall begin work within **seven (7) calendar days** after notification or as determined by the Engineer. Failure to respond within the designated time frame or as approved by the Engineer may result in cancellation of this contract.

No direct payment will be made for Mobilization as it shall be considered incidental to other bid items in this contract.

#### **EMERGENCY MOBILIZATION**

A separate bid item will be used for emergency mobilization for "Installation of Erosion Control Measures" and shall include a cost for mobilizing into the designated county on an emergency basis. Under this item the contractor shall respond to the location(s) designated by the Engineer within twenty-four (24) hours. Failure to respond within the designated time frame may result in nonpayment of this item as emergency work. Emergency "Installation of Erosion Control Measures" will have no minimum limits and the contractor shall consider this when submitting the price for this bid item.

Payment will be made under:

Pay Item Pay Unit Mobilization - Emergency Each

#### AGGREGATE PRODUCTION

Provide aggregate from a producer who uses the current Aggregate Quality Control/Quality Assurance Program, which is in effect at the time of shipment.

No price adjustment is allowed to contractors or producers who use the program. Participation in the program does not relieve the producer of the responsibility of complying with all requirements of the *Standard Specifications*. Copies of this procedure are available upon request from the Materials and Test Unit.

## **MATERIALS**

Revise the 2012 Standard Specifications as follows:

Page 10-1, Article 1000-1, DESCRIPTION, lines 9-10, replace the last sentence of the first paragraph with the following:

Type IL, IP, IS or IT blended cement may be used instead of Portland cement.

## Page 10-1, Article 1000-1, DESCRIPTION, line 14, add the following:

If any change is made to the mix design, submit a new mix design (with the exception of an approved pozzolan source change).

If any major change is made to the mix design, also submit new test results showing the mix design conforms to the criteria. Define a major change to the mix design as:

- (1) A source change in coarse aggregate, fine aggregate or cement.
- (2) A pozzolan class or type change (e.g. Class F fly ash to Class C fly ash).
- (3) A quantitative change in coarse aggregate (applies to an increase or decrease greater than 5%), fine aggregate (applies to an increase or decrease greater than 5%), water (applies to an increase only), cement (applies to a decrease only), or pozzolan (applies to an increase or decrease greater than 5%).

Use materials which do not produce a mottled appearance through rusting or other staining of the finished concrete surface.

Page 10-5, Table 1000-1, REQUIREMENTS FOR CONCRETE, replace with the following:

TABLE 1000-1 REQUIREMENTS FOR CONCRETE																																											
e e		Maxin	num Wate			Consistency Max. Slump			<b>Cement Content</b>																																		
Class of	Min. Comp. Strength at 28 days		rete Entrained Concrete		Air-Entrained Entr		Concrete E		Concrete Entrained Concrete		Entrained		Entrained		Entrained		Entrained		Entrained		Entrained		Entrained Concrete		Entrained		Entrained		Entrained		Entrained Concrete		Entrained Concrete		Entrained Concrete		Vibrated Non- Vibrated		brated Non- brated		rated		on- rated
	Σ ω	Rounded Aggregate	Angular Aggre-gate	Rounded Aggregate	Angular Aggre-gate	, i			Max.	Min.	Max.																																
Units	psi					inch	inch	lb/cy	lb/cy	lb/cy	lb/cy																																
AA	4,500	0.381	0.426	-	-	3.5	-	639	715	-	-																																
AA Slip Form	4,500	0.381	0.426	-	-	1.5	-	639	715	-	-																																
Drilled Pier	4,500	-	-	0.450	0.450	-	5-7 dry 7-9 wet	-	-	640	800																																
A	3,000	0.488	0.532	0.550	0.594	3.5	4	564	-	602	-																																
В	2,500	0.488	0.567	0.559	0.630	1.5 machine- placed 2.5 hand- placed	4	508	-	545	-																																
Sand Light- weight	4,500	-	0.420	-	-	4	-	715	-	-	-																																
Latex Modified	3,000 7 day	0.400	0.400	-	-	6	-	658	-	-	-																																
Flowable Fill excavatable	150 max. at 56 days	as needed	as needed	as needed	as needed	-	Flow- able	-	-	40	100																																
Flowable Fill non-excavatable	125	as needed	as needed	as needed	as needed	-	Flow- able	-	-	100	as needed																																
Pavement	4,500 design, field 650 flexural, design only	0.559	0.559	-	-	1.5 slip form 3.0 hand place	-	526	-	-	-																																
Precast	See Table 1077-1	as needed	as needed	-	-	6	as needed	as needed	as needed	as needed	as needed																																
Prestress	per contract	See Table 1078-1	See Table 1078-1	-	-	8	-	564	as needed	-	-																																

Page 10-1, Article 1000-2, MATERIALS, line 16; Page 10-8, Subarticle 1000-7(A), Materials, line 8; and Page 10-18, Article 1002-2, MATERIALS, line 9, add the following to the table of item references:

ItemSectionType IL Blended Cement1024-1

Page 10-19, Article 1002-3, SHOTCRETE FOR TEMPORARY SUPPORT OF EXCAVATIONS, line 30, add the following at the end of Section 1002:

## (H) Handling and Storing Test Panels

Notify the Area Materials Engineer when preconstruction or production test panels are made within 24 hours of shooting the panels. Field cure and protect test panels from damage in accordance with ASTM C1140 until the Department transports panels to the Materials and Tests Regional Laboratory for coring.

Page 10-1, Subarticle 1000-3(A), Composition and Design, lines 25-27, replace the second paragraph with the following:

Fly ash may be substituted for cement in the mix design up to 30% at a rate of 1.0 lb of fly ash to each pound of cement replaced.

Page 10-2, Subarticle 1000-3(A), Composition and Design, lines 12-21, delete the third paragraph through the sixth paragraph beginning with "If any change is made to the mix design, submit..." through "...(applies to a decrease only)."

Page 10-6, Subarticle 1000-4(I), Use of Fly Ash, lines 36-2, replace the first paragraph with the following:

Fly ash may be substituted for cement in the mix design up to 30% at a rate of 1.0 lb of fly ash to each pound of cement replaced. Use Table 1000-1 to determine the maximum allowable water-cementitious material (cement + fly ash) ratio for the classes of concrete listed.

Page 10-7, Table 1000-3, MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO, delete the table.

Page 10-7, Article 1000-5, HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE, lines 30-31, delete the second sentence of the third paragraph.

Page 10-23, Table 1005-1, AGGREGATE GRADATION-COARSE AGGREGATE, replace with the following:

Percentage of Total by Weight Passing       1"     3/4"     1/2"     3/8"     #4     #8     #10     #16     #40       20-     0-15     -     0-5     -     -     -     -       55     0-15     -     0-5     -     -     -     -       -     35-     -     0-30     0-5     -     -     -     -       90-     20-     0-10     0-5     -     -     -     -     -       100     55     0-10     0-5     -     -     -     -     -	Percentage of Total by Weight Passing       3/4"     1/2"     3/8"     #4     #8     #10     #16       0-15     -     0-5     -     -     -       35-     -     0-30     0-5     -     -     -       70     -     0-30     0-5     -     -     -       20-     0-10     0-5     -     -     -     -
1/2" 3/8" #4 #8 #10 #16  - 0-5	1/2" 3/8" #4 #8 #10 #16 #40  - 0-5
1/2" 3/8" #4 #8 #10 #16 #40  - 0-5	5
3/8" #4 #8 #10 #16 #40  0-5	<u> </u>
#4 #8 #10 #16 #40	2
#8 #10 #16 #40	2
#10 #16 #40	<u> </u>
#16 #40	5
#40	5
	A A A A #200

<sup>26</sup> 

Page 10-40, Tables 1018-1 and 1018-2, PIEDMONT, WESTERN AND COASTAL AREA CRITERIA FOR ACCEPTANCE OF BORROW MATERIAL, under second column in both tables, replace second row with the following:

Acceptable, but not to be used in the top 3 ft of embankment or backfill

Page 10-46, Article 1024-1, PORTLAND CEMENT, line 33, add the following as the ninth paragraph:

Use Type IL blended cement that meets AASHTO M 240, except that the limestone content is limited to between 5 and 12% by weight and the constituents shall be interground. Class F fly ash can replace a portion of Type IL blended cement and shall be replaced as outlined in Subarticle 1000-4(I) for Portland cement. For mixes that contain cement with alkali content between 0.6% and 1.0% and for mixes that contain a reactive aggregate documented by the Department, use a pozzolan in the amount shown in Table 1024-1.

Page 10-46, Table 1024-1, POZZOLANS FOR USE IN PORTLAND CEMENT CONCRETE, replace with the following:

POZZOLANS FO	TABLE 1024-1 OR USE IN PORTLAND CEMENT CONCRETE
Pozzolan	Rate
Class F Fly Ash	20% - 30% by weight of required cement content with 1.0 lb Class F fly ash per lb of cement replaced
Ground Granulated Blast Furnace Slag	35%-50% by weight of required cement content with 1.0 lb slag per lb of cement replaced
Microsilica	4%-8% by weight of required cement content with 1.0 lb microsilica per lb of cement replaced

Page 10-47, Subarticle 1024-3(B), Approved Sources, lines 16-18, replace the second sentence of the second paragraph with the following:

Tests shall be performed by AASHTO's designated National Transportation Product Evaluation Program (NTPEP) laboratory for concrete admixture testing.

Page 10-65, Article 1050-1, GENERAL, line 41, replace the first sentence with the following:

All fencing material and accessories shall meet Section 106.

**Page 10-73, Article 1056-1, DESCRIPTION, lines 7-8,** delete the first sentence of the second paragraph and replace with the following:

Use geotextile fabrics that are on the NCDOT Approved Products List.

Page 10-73, Article 1056-2, HANDLING AND STORING, line 17, replace "mechanically stabilized earth (MSE) wall faces" with "temporary wall faces".

Page 10-73, Article 1056-4, GEOTEXTILES, line 33, add the following after the first sentence in the second paragraph:

Geotextiles will be identified by the product name printed directly on the geotextile. When geotextiles are not marked with a product name or marked with only a manufacturing plant identification code, geotextiles will be identified by product labels attached to the geotextile wrapping. When identification is based on labels instead of markings, unwrap geotextiles just before use in the presence of the Engineer to confirm that the product labels on both ends of the outside of the geotextile outer wrapping match the labels affixed to both ends of the inside of the geotextile roll core. Partial geotextile roles without the product name printed on the geotextile or product labels affixed to the geotextile roll core may not be used.

Page 10-74, Table 1056-1, GEOTEXTILE REQUIREMENTS, replace with the following:

	TABLE 1056-1 GEOTEXTILE REQUIREMENTS							
Druger gester			Requiremen	nt		Test		
Property	Type 1	Type 2	Type 3 <sup>A</sup>	Type 4	Type 5 <sup>B</sup>	Metho		
Typical Application	Shoulder Drains	Under Rip Rap	Temporary Silt Fence	Soil Stabilization	Temporary Walls	d		
Elongation (MD & CD)	≥ 50%	≥ 50%	≤ 25%	< 50%	< 50%	ASTM D4632		
Grab Strength (MD & CD)			100 lb <sup>C</sup>			ASTM D4632		
Tear Strength (MD & CD)	Table 1 <sup>D</sup> , Class 3	Table 1 <sup>D</sup> , Class 1	-	Table 1 <sup>D</sup> , Class 3	-	ASTM D4533		
Puncture Strength			-			ASTM D6241		
Ultimate Tensile Strength (MD & CD)	-	-	-	-	2,400 lb/ft <sup>C</sup> (unless required otherwise in the contract)	ASTM D4595		
Permittivity	Table 2 <sup>D</sup> ,				0.20 sec <sup>-1,C</sup>	ASTM D4491		
Apparent Opening Size	15% t	e 2 , o 50% u Soil	Table 7 <sup>D</sup>	Table 5 <sup>D</sup>	0.60 mm <sup>F</sup>	ASTM D4751		
UV Stability (Retained Strength)		No. 200 <sup>E</sup>			70% <sup>C, G</sup>	ASTM D4355		

- **A.** Minimum roll width of 36" required.
- **B.** Minimum roll width of 13 ft required.
- C. MARV per Article 1056-3.
- **D.** AASHTO M 288.
- E. US Sieve No. per AASHTO M 92.
- **F.** Maximum average roll value.
- **G.** After 500 hours of exposure.

Page 10-74, Article 1056-5, GEOCOMPOSITES, lines 7-8, replace the first sentence with the following:

Provide geocomposite drain strips with a width of at least 12" and Type 1 geotextiles attached to drainage cores that meet Table 1056-2.

Page 10-115, Subarticle 1074-7(B), Gray Iron Castings, lines 10-11, replace the first two sentences with the following:

Supply gray iron castings meeting all facets of AASHTO M 306 excluding proof load. Proof load testing will only be required for new casting designs during the design process, and conformance to M306 loading (40,000 lbs.) will be required only when noted on the design documents.

Page 10-126, Table 1078-1, REQUIREMENTS FOR CONCRETE, replace with the following:

TABLE 1 REQUIREMENTS F		
Property	28 Day Design Compressive Strength 6,000 psi or less	28 Day Design Compressive Strength greater than 6,000 psi
Maximum Water/Cementitious Material Ratio	0.45	0.40
Maximum Slump without HRWR	3.5"	3.5"
Maximum Slump with HRWR	8"	8"
Air Content (upon discharge into forms)	5 + 2%	5 + 2%

Page 10-151, Article 1080-4, INSPECTION AND SAMPLING, lines 18-22, replace (B), (C) and (D) with the following:

- (B) At least 3 panels prepared as specified in 5.5.10 of AASHTO M 300, Bullet Hole Immersion Test.
- (C) At least 3 panels of 4"x6"x1/4" for the Elcometer Adhesion Pull Off Test, ASTM D4541.
- (D) A certified test report from an approved independent testing laboratory for the Salt Fog Resistance Test, Cyclic Weathering Resistance Test, and Bullet Hole Immersion Test as specified in AASHTO M 300.
- (E) A certified test report from an approved independent testing laboratory that the product has been tested for slip coefficient and meets AASHTO M253, Class B.

Page 10-161, Subarticle 1081-1(A), Classifications, lines 29-33, delete first 3 sentences of the description for Type 2 and replace with the following:

**Type 2 -** A low-modulus, general-purpose adhesive used in epoxy mortar repairs. It may be used to patch spalled, cracked or broken concrete where vibration, shock or expansion and contraction are expected.

Page 10-162, Subarticle 1081-1(A), Classifications, lines 4-7, delete the second and third sentences of the description for Type 3A. Lines 16-22, delete Types 6A, 6B and 6C.

## Page 10-162, Subarticle 1081-1(B), Requirements, lines 26-30, replace the second paragraph with the following:

For epoxy resin systems used for embedding dowel bars, threaded rods, rebar, anchor bolts and other fixtures in hardened concrete, the manufacturer shall submit test results showing that the bonding system will obtain 125% of the specified required yield strength of the fixture. Furnish certification that, for the particular bolt grade, diameter and embedment depth required, the anchor system will not fail by adhesive failure and that there is no movement of the anchor bolt. For certification and anchorage, use 3,000 psi as the minimum Portland cement concrete compressive strength used in this test. Use adhesives that meet Section 1081.

List the properties of the adhesive on the container and include density, minimum and maximum temperature application, setting time, shelf life, pot life, shear strength and compressive strength.

Page 10-163, Table 1081-1, PROPERTIES OF MIXED EPOXY RESIN SYSTEMS, replace with the following:

1,500	1,500	1,500	2,000	2,000	1,500	1,500	Min. Bond Strength Slant Shear Test at 14 days (psi)
1.0	1.0	1.0	1.5	1.0	1.0	1.5	Maximum Water Absorption (%)
ı	5,000	ı	ı	1	1	5,000 (Neat)	Min. Compressive Strength of 2" mortar cubes at 7 days
6,000	3,000	3,000	6,000 (Neat)	6,000-	4,000-	3,000 (Neat)	Min. Compressive Strength of 2". mortar cubes at 24 hours
2-5	5-15	5-15	2-5	2-5	30 min.	30 min.	Tensile Elongation at 7 days (%)
4,000	1,500	1,500	4,000	4,000	2,000	1,500	Minimum Tensile Strength at 7 days (psi)
20-60	40-80	40-80	5-50	20-50	30-60	20-50	Pot Life (Minutes)
50	10	10	1	20	20	ı	Speed (RPM)
2	4	4	ŀ	4	သ	ı	Spindle No.
1-6	40-150	40-150	Gel	25-75	10-30	Gel	Viscosity-Poises at 77°F ± 2°F
Type 5	Type 4B	Туре 4A	Type 3A	Type 3	Type 2	Type 1	Property
		ZSTEMS	RESIN SY	1081-1 EPOXY F	TABLE 1081-1 MIXED EPOXY	TIES OF	TABLE 1081-1 PROPERTIES OF MIXED EPOXY RESIN SYSTEMS

Page 10-164, Subarticle 1081-1(E), Prequalification, lines 31-33, replace the second sentence of the first paragraph with the following:

Manufacturers choosing to supply material for Department jobs must submit an application through the Value Management Unit with the following information for each type and brand name:

## Page 10-164, Subarticle 1081-1(E)(3), line 37, replace with the following:

(3) Type of the material in accordance with Articles 1081-1 and 1081-4,

**Page 10-165, Subarticle 1081-1(E)(6), line 1,** in the first sentence of the first paragraph replace "AASHTO M 237" with "the specifications".

Page 10-165, Subarticle 1081-1(E), Prequalification, line 9-10, delete the second sentence of the last paragraph.

Page 10-165, Subarticle 1081-1(F), Acceptance, line 14, in the first sentence of the first paragraph replace "Type 1" with "Type 3".

Page 10-169, Subarticle 1081-3(G), Anchor Bolt Adhesives, delete this subarticle.

**Page 10-170, Article 1081-3, HOT BITUMEN, line 9,** add the following at the end of Section 1081:

#### 1081-4 EPOXY RESIN ADHESIVE FOR BONDING TRAFFIC MARKINGS

#### (A) General

This section covers epoxy resin adhesive for bonding traffic markers to pavement surfaces.

#### (B) Classification

The types of epoxies and their uses are as shown below:

**Type I** – Rapid Setting, High Viscosity, Epoxy Adhesive. This type of adhesive provides rapid adherence to traffic markers to the surface of pavement.

**Type II** – Standard Setting, High Viscosity, Epoxy Adhesive. This type of adhesive is recommended for adherence of traffic markers to pavement surfaces when rapid set is not required.

**Type III** – Rapid Setting, Low Viscosity, Water Resistant, Epoxy Adhesive. This type of rapid setting adhesive, due to its low viscosity, is appropriate only for use with embedded traffic markers.

**Type IV** – Standard Set Epoxy for Blade Deflecting-Type Plowable Markers.

#### (C) Requirements

Epoxies shall conform to the requirements set forth in AASHTO M 237.

#### (D) Prequalification

Refer to Subarticle 1081-1(E).

#### (E) Acceptance

Refer to Subarticle 1081-1(F).

Page 10-173, Article 1084-2, STEEL SHEET PILES, lines 37-38, replace first paragraph with the following:

Steel sheet piles detailed for permanent applications shall be hot rolled and meet ASTM A572 or ASTM A690 unless otherwise required by the plans. Steel sheet piles shall be coated as required by the plans. Galvanized sheet piles shall be coated in accordance with Section 1076. Metallized sheet piles shall be metallized in accordance to the Project Special Provision "Thermal Sprayed Coatings (Metallization)" with an 8 mil, 99.9% aluminum alloy coating and a 0.5 mil seal coating.

Any portion of the metallized sheet piling encased in concrete shall receive a barrier coat. The barrier coat shall be an approved waterborne coating with a low-viscosity which readily absorbs into the pores of the aluminum thermal sprayed coating. The waterborne coating shall be applied at a spreading rate that results in a theoretical 1.5 mil dry film thickness. The manufacturer shall issue a letter of certification that the resin chemistry of the waterborne coating is compatible with the 99.9% aluminum thermal sprayed alloy and suitable for tidal water applications.

## Page 10-174, Subarticle 1086-1(B)(1), Epoxy, lines 18-24, replace with the following:

The epoxy shall meet Article 1081-4.

The 2 types of epoxy adhesive which may be used are Type I, Rapid Setting, and Type II, Standard Setting. Use Type II when the pavement temperature is above 60°F or per the manufacturer's recommendations whichever is more stringent. Use Type I when the pavement temperature is between 50°F and 60°F or per the manufacturer's recommendations whichever is more stringent. Epoxy adhesive Type I, Cold Set, may be used to attach temporary pavement markers to the pavement surface when the pavement temperature is between 32°F and 50°F or per the manufacturer's recommendations whichever is more stringent.

Page 10-175, Subarticle 1086-2(E), Epoxy Adhesives, line 27, replace "Section 1081" with "Article 1081-4".

Page 10-177, Subarticle 1086-3(E), Epoxy Adhesives, line 22, replace "Section 1081" with "Article 1081-4".

Page 10-179, Subarticle 1087-4(A), Composition, lines 39-41, replace the third paragraph with the following:

All intermixed and drop-on glass beads shall not contain more than 75 ppm arsenic or 200 ppm lead.

Page 10-180, Subarticle 1087-4(B), Physical Characteristics, line 8, replace the second paragraph with the following:

All intermixed and drop-on glass beads shall comply with NCGS § 136-30.2 and 23 USC § 109(r).

Page 10-181, Subarticle 1087-7(A), Intermixed and Drop-on Glass Beads, line 24, add the following after the first paragraph:

Use X-ray Fluorescence for the normal sampling procedure for intermixed and drop-on beads, without crushing, to check for any levels of arsenic and lead. If any arsenic or lead is detected, the sample shall be crushed and repeat the test using X-ray Fluorescence. If the X-ray Fluorescence test shows more than a LOD of 5 ppm, test the beads using United States Environmental Protection Agency Method 6010B, 6010C or 3052 for no more than 75 ppm arsenic or 200 ppm lead.

Page 10-204, Table 1092-3 MINIMUM COEFFICIENT OF RETROREFLECTION FOR NC GRADE A, replace with the following:

TABLE 1092-3 MINIMUM COEFFICIENT OF RETROREFLECTION FOR NC GRADE A (Candelas Per Lux Per Square Meter)									
Observation Angle, degrees	Entrance Angle, degrees	White	Yellow	Green	Red	Blue	Fluorescent Yellow Green	Fluorescent Yellow	
0.2	-4.0	525	395	52	95	30	420	315	
0.2	30.0	215	162	22	43	10	170	130	
0.5	-4.0	310	230	31	56	18	245	185	
0.5	30.0	135	100	14	27	6	110	81	
1.0	-4.0	120	60	8	16	3.6	64	48	
1.0	30.0	45	34	4.5	9	2	36	27	

## **TEMPORARY TRAFFIC CONTROL (TTC)**

Maintain traffic in accordance with Divisions 10, 11 and 12 of the 2012 Standard Specifications and the following provisions:

Install Work Zone Advance Warning Signs in accordance with the detail drawing provided in these plans prior to beginning any other work. Use a lane closure or slow moving operation to complete the work, as necessary, unless otherwise indicated. Refer to Standard Drawing No. 1101.02, 1101.11, 1110.01, 1110.02, 1130.01 1135.01 and 1180.01 of the 2012 Roadway Standard Drawings. Use a moving operation only if the minimum speed maintained at all times is 3 mph with no stops that narrow or close a lane of travel. If the moving operation is progressing slower than 3 mph at any time, install a lane closure. Maintain the existing traffic pattern at all times, except in the immediate work zone where lane closures are allowed as determined by the Engineer.

Refer to attached details and Standard Drawing No. 1101.02, 1101.03, 1101.04, 1101.05, 1101.11, 1110.01, 1110.02, 1115.01, 1130.01, 1135.01, 1145.01, 1150.01, 1165.01, and 1180.01 of the 2012 Roadway Standard Drawings when closing a lane of travel in a stationary work zone such as pavement patching resurfacing, or pavement marking removal. Properly ballasted cones and skinny drums may be used instead of drums. However, drums are required for the upstream taper portion of lane closures in all applications. The stationary work zone shall be a maximum of 1 mile in length at any given time on 2 Lane, 2 Way facilities unless otherwise approved by the Engineer. A pilot vehicle operation may be used in conjunction with flaggers and the appropriate pilot vehicle warning signing as directed by the Engineer. During periods of construction inactivity, return the traffic pattern to the existing alignment and remove or cover any work zone signs. When covering work zone signs, use an opaque material that prevents reading of the sign at night by a driver using high beam headlights. Use material, which does not damage the sign sheeting. Replace any obliterated markings as required by other sections of the 2012 Standard Specifications and the Engineer.

When personnel and/or equipment are working on the shoulder adjacent to and within 5 feet of an open travel lane, close the nearest open travel lane using Standard Drawing No. 1101.02 of the 2012 Roadway Standard Drawings. When personnel and/or equipment are working within a lane of travel of an undivided facility, close the lane according to the traffic control plans, 2012 Roadway Standard Drawings or as directed by the Engineer. Conduct the work so that all personnel and/or equipment remain within the closed travel lane. Do not work simultaneously, on both sides of an open travel way, within the same location, on a two-lane, two-way road. Perform work only when weather and visibility conditions allow safe operations as directed by the Engineer.

When utilizing a slow-moving operation for such items as pavement marking and marker placement, as a minimum the slow moving operation caravan shall consist of the vehicles and devices shown on the Moving Operation Caravan Details according to Roadway Standard Drawing No. 1101.02, sheet 11 of the 2012 Roadway Standard Drawings. Traffic cones may be used when necessary to provide additional protection of wet pavement markings. Ballast all traffic cones so they will not be blown over by traffic.

#### TRAFFIC OPERATIONS:

#### 1) Drop-Off Requirements and Time Limitations:

Do not exceed a difference of 2 inches in elevation between open lanes of traffic for nominal lifts of 1.5 inches

During a resurfacing only operation, bring all newly resurfaced lanes to the same elevation within 72 hours for nominal lifts of 1.5 inches or less of asphalt course and by the end of each work day for nominal lifts of greater than 1.5 inches of asphalt course

Backfill at a 6:1 slope up to the edge and elevation of existing pavement in areas adjacent to an open travel lane that has an edge of pavement drop-off as follows:

- (A) Drop-off that exceeds 2 inches on roadways with posted speed limits of 45 mph or greater.
- (B) Drop-off that exceeds 3 inches on roadways with posted speed limits less than 45 mph.

For drop-offs that exceed the above requirements, backfill the unacceptable drop-off with suitable compacted material, as approved by the Engineer. The material, equipment and labor associated with this operation will be at no expense to the Department. This work is not considered part of shoulder reconstruction.

# 2) Project Requirements:

Failure to comply with the following requirements will result in a suspension of all other operations:

- 1. Before working on ANY MAP, the Contractor shall submit a written construction sequence for traffic control and construction lighting for ALL MAPS to the Engineer at the first pre-construction meeting and the sequence must be approved before closing a lane of traffic. The Contractor and Engineer will coordinate with the Traffic Management Unit at 919-773-2800 or Traffic Services for additional traffic control guidance, as necessary.
- 2. Obtain written approval of the Engineer before working in more than one location or setting up additional lane closures. The maximum length of any one lane closure is 1 mile unless otherwise directed by the Engineer.
- 3. Contractor shall mill and pave lanes in an order such that water shall not accumulate.
- 4. Traffic Control for the milling and/or paving of ramps is to be done according to Standard Drawing Number 1101.02, Sheets 9 & 10 unless otherwise approved to be closed by the Engineer. If approved, Contractor will provide plans and devices for the detour at no additional cost to the department.
- 5. If lane closure restrictions apply, see Special Provision, "Intermediate Contract Times and Liquidated Damages".
- 6. If milled areas are not paved back within 72 hours, the Contractor is to furnish and install the following portable signs to warn drivers of the conditions. These are to include, but not limited to "Rough Road" (W8-8), "Uneven Lanes" (W8-11), and "Grooved Pavement" (W8-15) w/ Motorcycle Plaque mounted below. These are to be dual indicated on Multi-Lane Roadways with speed limits 45 mph and greater where lateral clearance can be obtained within the median areas. These portable signs are incidental to the other items of work included in the temporary traffic control (Lump Sum) pay item.

# 3) Work Zone Signing:

# **Description**

Install advance/general warning work zone signs according to the Detail Drawing provided in these plans prior to beginning of work. Install and maintain signing in accordance with the attached drawings and Divisions 11 and 12 of the 2012 Standard Specifications.

#### (A) Installation

All stationary Advance/General warning work zone signs require notification to existing Utility owners per Article 105-8 of the 2012 Standard Specifications and Special Provision SP1 G115 within 3 to 12 full working days prior to installation.

Install all Advance/General warning work zone signs before beginning work on a particular map. If signs are installed more than seven (7) calendar days prior to the beginning of work on a particular map, cover the signs until the work begins. Install each work zone Advance/General warning sign separately and not on the same post or stand with any other sign except where an advisory speed plate or directional arrow is used.

All stationary signing is to be installed as shown on the detail drawing(s) unless otherwise directed by the Engineer. All sign locations to be verified by the Engineer prior to installation. Once the signs have been installed and accepted, any sign relocations requested by the Department will be compensated in accordance with Article 104-7. Any additional signs other than the ones shown in the drawing will be compensated in accordance with Article 104-7.

No stationary -Y- Line advance warning signage is required unless there's more than 1,000 feet of resurfacing along the -Y- line. Whenever work proceeds through an intersection, portable signs shall be used for traffic control. There will be no direct compensation for any portable signing.

If there is a period of construction inactivity longer than 14 calendar days, remove or cover advance/general warning work zone signs. Uncover advance/general warning work zone signs no more than 7 calendar days before work resumes. All other operations may be suspended upon failure to comply with the above requirements. Such suspended operations would not be resumed until the above requirements are fulfilled.

# (B) Sign Removal

All stationary work zone signs shall be removed once the project is substantially complete. The project is substantially complete when the resurfacing operations are completed and the shoulders are brought up to the same elevation as the proposed pavement and when pavement markings are installed. The pavement marking doesn't have to be the final marking material to be considered substantially complete. Any remaining punch list items are to be completed with portable work zone signing. There will be no compensation for any portable signing. Sign removal is a condition of final project acceptance.

# (C) Lane Closure Work Zone Signs

Install any required lane closure signing needed during the life of the project in accordance with the Standard Drawing No. 1101.02, 1101.11 and 1110.02 of the 2012 Roadway Standard Drawings. Any required portable signs for lane closures are compensated in the contract pay item for Temporary Traffic Control.

# 4) Measurement and Payment:

Temporary traffic control work, including, but not limited to installation and removal of stationary and portable signs, cones, drums, skinny drums, flaggers, AFAD's, changeable message boards, truck mounted attenuators, flashing arrow panels, and pilot vehicles will be considered incidental to the various other bid items in the contract and **NO DIRECT PAYMENT** will be made. Except that work which requires the closure of a lane on a divided highway will be paid for at the contract unit price for "Traffic Control, Full Lane Closure Divided Highway".

# TRAFFIC CONTROL, FULL LANE CLOSURE DIVIDED HIGHWAY

As stated in the General Provisions of this contract, the contractor shall maintain traffic during work on this project. The contractor shall provide and utilize complete and proper traffic controls and traffic control devices during all operations. All traffic control and traffic control devices required for any operation shall be functional and in place prior to the commencement of that operation. All signs, lights, flaggers and other traffic control devices shall be considered incidental to the work of this contract with the exception of a full lane closure on a multilane freeway or expressway.

When erosion control measures are to be installed from multilane facilities, such as freeways or expressways, and the Contractor must be in the roadway to perform the work, a full lane closure shall be used. When the installation of erosion control measures may result in any debris falling onto the travelway or paved shoulder of any controlled access facilities such as freeways or expressways, a full lane closure shall be used. Full lane closures may also be required at the discretion of the Engineer. A full lane closure, for the purposes of this contract, is where conditions warrant the use of a flashing arrow panel, a dual indicating series of signs, merging taper(s), and possibly a truck mounted impact attenuator. In an urban location, where traffic speeds are low and traffic control can be handled by signs; cones and flaggers shall not be considered a full lane closure.

The contractor, as stated in this contract, shall be responsible for providing all necessary traffic control. This shall include any full lane closure on a multilane facility. When a lane closure is required by the Engineer, as established by the conditions stated in this provision, the contractor shall be paid the bid price for each required full lane closure. The contractor shall install as many erosion control measures within a single lane closure as possible. Every effort shall be made to minimize the number of lane closures required to perform this work. The Engineer shall decide the appropriate length of any lane closures; however, no single lane closure shall be more than 1.5 miles in length. The contractor shall exercise every effort to perform as much work as possible in a manner that will eliminate the need for any lane closures.

# **Method of Payment**

Payment for the work covered under this provision will be based on the number of full lane closures, required by the Engineer, and installed by the contractor.

Payment will be made under the following item:

Pay Item Pay Unit Traffic Control, Full Lane Closure Divided Highway EA

#### **COIR FIBER MAT**

# **Description**

Furnish material, install and maintain coir fiber mat in locations shown on the plans or in locations as directed. Work includes providing all materials, excavating and backfilling, and placing and securing coir fiber mat with stakes, steel reinforcement bars or staples as directed.

#### **Materials**

ItemSectionCoir Fiber Mat1060-14

Anchors: Stakes, reinforcement bars, or staples shall be used as anchors.

Wooden Stakes:

Provide hardwood stakes 12"- 24" long with a 2" x 2" nominal square cross section. One end of the stake must be sharpened or beveled to facilitate driving through the coir fiber mat and down into the underlying soil. The other end of the stake needs to have a 1"- 2" long head at the top with a 1"- 2" notch following to catch and secure the coir fiber mat.

Steel Reinforcement Bars:

Provide uncoated #10 steel reinforcement bars 24" nominal length. The bars shall have a 4" diameter bend at one end with a 4" straight section at the tip to catch and secure the coir fiber mat.

Staples:

Provide staples made of 0.125" diameter new steel wire formed into a u shape not less than 12" in length with a throat of 1" in width.

#### **Construction Methods**

Place the coir fiber mat immediately upon final grading. Provide a smooth soil surface free from stones, clods, or debris that will prevent the contact of the mat with the soil. Unroll the mat and apply without stretching such that it will lie smoothly but loosely on the soil surface.

For stream relocation applications, take care to preserve the required line, grade, and cross section of the area covered. Bury the top slope end of each piece of mat in a narrow trench at least 6 in. deep and tamp firmly. Where one roll of matting ends and a second roll begins, overlap the end of the upper roll over the buried end of the second roll so there is a 6 in. overlap. Construct check trenches at least 12 in. deep every 50 ft. longitudinally along the edges of the mat or as directed. Fold over and bury mat to the full depth of the trench, close and tamp firmly. Overlap mat at least 6 in. where 2 or more widths of mat are installed side by side.

Place anchors across the mat at the ends approximately 1 ft. apart. Place anchors along the outer edges and down the center of the mat 3 ft. apart.

Adjustments in the trenching or anchoring requirements to fit individual site conditions may be required.

# **Measurement and Payment**

Coir Fiber Mat will be measured and paid for as the actual number of square yards measured along the surface of the ground over which coir fiber mat is installed and accepted.

No measurement will be made for anchor items.

Payment will be made under:

Pay ItemPay UnitCoir Fiber MatSquare Yard

# PERMANENT SOIL REINFORCEMENT MAT

# **Description**

This work consists of furnishing and placing *Permanent Soil Reinforcement Mat*, of the type specified, over previously prepared areas as directed.

#### **Materials**

The product shall be a permanent erosion control reinforcement mat and shall be constructed of synthetic or coconut fibers evenly distributed throughout the mat between a bottom UV stabilized netting and a heavy duty UV stabilized top net. The matting shall be stitched together with UV stabilized polypropylene thread to form a permanent three-dimensional structure. The mat shall have the following minimum physical properties:

Property	<b>Test Method</b>	Value	Unit
Light Penetration	ASTM D6567	9	%
Thickness	ASTM D6525	0.40	in
Mass Per Unit Area	ASTM D6566	0.55	lb/sy
Tensile Strength	ASTM D6818	385	lb/ft
Elongation (Maximum)	ASTM D6818	49	%
Resiliency	ASTM D1777	>70	%
UV Stability *	ASTM D4355	<u>≥</u> 80	%
Porosity (Permanent Net)	ECTC Guidelines	<u>≥</u> 85	%
Maximum Permissible Shear Stress	Performance Bench	<u>≥</u> 8.0	lb/ft <sup>2</sup>
(Vegetated)	Test		
Maximum Allowable Velocity	Performance Bench	≥16.0	ft/s
(Vegetated)	Test		

\*ASTM D1682 Tensile Strength and % strength retention of material after 1000 hours of exposure.

Submit a certification (Type 1, 2, or 3) from the manufacturer showing:

- (A) the chemical and physical properties of the mat used, and
- (B) conformance of the mat with this specification.

#### **Construction Methods**

Matting shall be installed in accordance with Subarticle 1631-3(B) of the Standard Specifications.

All areas to be protected with the mat shall be brought to final grade and seeded in accordance with Section 1660 of the *Standard Specifications*. The surface of the soil shall be smooth, firm, stable and free of rocks, clods, roots or other obstructions that would prevent the mat from lying in direct contact with the soil surface. Areas where the mat is to be placed will not need to be mulched.

# **Measurement and Payment**

Permanent Soil Reinforcement Mat will be measured and paid for as the actual number of square yards measured along the surface of the ground over which Permanent Soil Reinforcement Mat is installed and accepted. Overlaps will not be included in the measurement, and will be considered as incidental to the work. Such payment shall be full compensation for furnishing and installing the mat, including overlaps, and for all required maintenance.

Payment will be made under:

Pay Item Pay Unit

Permanent Soil Reinforcement Mat

Square Yard

#### WATTLES WITH POLYACRYLAMIDE (PAM)

#### **Description**

Wattles are tubular products consisting of excelsior fibers encased in polyethylene netting. Wattles are used on slopes or channels to intercept runoff and act as a velocity break. Wattles are to be placed at locations shown on the plans or as directed. Installation shall follow the detail provided in the plans and as directed. Work includes furnishing materials, installation of wattles, matting installation, PAM application, and removing wattles.

#### **Materials**

Wattle shall meet the following specifications: 100% Curled Wood(Excelsior) Fibers Minimum Diameter 18 in.

Minimum Density 2.6 lb/ft<sub>3</sub> +/- 10%

Net Material Polyethylene

Net Openings 1 in. x 1 in.

Net Configuration Totally Encased

Minimum Weight 20 lb. +/- 10% per 10 ft. length

Anchors: Stakes shall be used as anchors.

Wooden Stakes: Provide hardwood stakes a minimum of 2-ft. long with a 2 in. x 2 in. nominal square cross section. One end of the stake must be sharpened or beveled to facilitate driving down into the underlying soil.

Matting shall meet the requirements of section 1060-8 of the *Standard Specifications*, or shall meet specifications provided elsewhere in this contract.

Provide staples made of 0.125" diameter new steel wire formed into a u shape not less than 12" in length with a throat of 1" in width.

Polyacrylamide (PAM) shall be applied in powder form and shall be anionic or neutrally charged. Soil samples shall be obtained in areas where the wattles will be placed and analyzed for the appropriate PAM flocculant to be utilized with each wattle.

#### **Construction Methods**

Wattles shall be secured to the soil by wire staples approximately every 1 linear foot and at the end of each section of wattle. A minimum of 4 stakes shall be installed on the downstream side of the wattle with a maximum spacing of 2 linear feet along the wattle, and according to the detail. Install a minimum of 2 stakes on the upstream side of the wattle according to the detail provided in the plans. Stakes shall be driven into the ground a minimum of 10 in. with no more than 2 in. projecting from the top of the wattle. Drive stakes at an angle according to the detail provided in the plans. Install wattles to the top of the ditch according to the detail provided in the plans. Overlap adjoining sections of wattles a minimum of 6 in. Installation of matting shall be in accordance with the detail provided in the plans, and in accordance with section 1631-3 of the Standard Specifications, or in accordance with specifications provided elsewhere in this contract. Apply PAM over the lower center portion of the wattle where the water is going to flow over at a rate of 3.5 ounces per wattle. PAM applications shall be done during construction activities after every rainfall event that is equal to or exceeds 0.25 in.

The Contractor shall maintain the wattles until the project is accepted or until the wattles are removed, and shall remove and dispose of silt accumulations at the wattles when so directed in accordance with the requirements of Section 1630 of the *Standard Specifications*.

#### **Measurement and Payment**

Wattles will be measured and paid for by the actual number of linear feet of wattles which are installed and accepted. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the Wattles.

Matting will be measured and paid for in accordance with section 1631-4 of the *Standard Specifications*, or in accordance with specifications provided elsewhere in this contract.

*Polyacrylamide(PAM)* will be measured and paid for by the actual weight in pounds of PAM applied to the wattles. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to apply the *Polyacrylamide(PAM)*.

Payment will be made under:

Pay ItemPay UnitPolyacrylamide(PAM)PoundWattleLinear Foot

# EROSION AND SEDIMENT CONTROL/STORMWATER CERTIFICATION

#### General

Schedule and conduct construction activities in a manner that will minimize soil erosion and the resulting sedimentation and turbidity of surface waters. Comply with the requirements herein regardless of whether or not a National Pollution discharge Elimination System (NPDES) permit for the work is required.

Establish a chain of responsibility for operations and subcontractors' operations to ensure that the *Erosion and Sediment Control/Stormwater Pollution Prevention Plan* is implemented and maintained over the life of the contract.

- (A) Certified Supervisor Provide a certified Erosion and Sediment Control/Stormwater Supervisor to manage the Contractor and subcontractor operations, insure compliance with Federal, State and Local ordinances and regulations, and manage the Quality Control Program.
- (B) *Certified Foreman* Provide a certified, trained foreman for each construction operation that increases the potential for soil erosion or the possible sedimentation and turbidity of surface waters.
- (C) Certified Installer Provide a certified installer to install or direct the installation for erosion or sediment/stormwater control practices.
- (D) Certified Designer Provide a certified designer for the design of the erosion and sediment control/stormwater component of reclamation plans and, if applicable, for the design of the project erosion and sediment control/stormwater plan.

#### **Roles and Responsibilities**

(A) Certified Erosion and Sediment Control/Stormwater Supervisor - The Certified Supervisor shall be Level II and responsible for ensuring the erosion and sediment control/stormwater plan is adequately implemented and maintained on the project and for conducting the quality control program. The Certified Supervisor shall be on the project

within 24 hours notice from initial exposure of an erodible surface to the project's final acceptance. Perform the following duties:

- (1) Manage Operations Coordinate and schedule the work of subcontractors so that erosion and sediment control/stormwater measures are fully executed for each operation and in a timely manner over the duration of the contract.
  - (a) Oversee the work of subcontractors so that appropriate erosion and sediment control/stormwater preventive measures are conformed to at each stage of the work.
  - (b) Prepare the required National Pollutant Discharge Elimination System (NPDES) Inspection Record and submit to the Engineer.
  - (c) Attend all weekly or monthly construction meetings to discuss the findings of the NPDES inspection and other related issues.
  - (d) Implement the erosion and sediment control/stormwater site plans requested.
  - (e) Provide any needed erosion and sediment control/stormwater practices for the Contractor's temporary work not shown on the plans, such as, but not limited to work platforms, temporary construction, pumping operations, plant and storage yards, and cofferdams.
  - (f) Acquire applicable permits and comply with requirements for borrow pits, dewatering, and any temporary work conducted by the Contractor in jurisdictional areas.
  - (g) Conduct all erosion and sediment control/stormwater work in a timely and workmanlike manner.
  - (h) Fully perform and install erosion and sediment control/stormwater work prior to any suspension of the work.
  - (i) Coordinate with Department, Federal, State and Local Regulatory agencies on resolution of erosion and sediment control/stormwater issues due to the Contractor's operations.
  - (j) Ensure that proper cleanup occurs from vehicle tracking on paved surfaces or any location where sediment leaves the Right-of-Way.
  - (k) Have available a set of erosion and sediment control/stormwater plans that are initialed and include the installation date of Best Management Practices. These practices shall include temporary and permanent groundcover and be properly updated to reflect necessary plan and field changes for use and review by Department personnel as well as regulatory agencies.
- (2) Requirements set forth under the NPDES Permit The Department's NPDES Stormwater permit (NCS000250) outlines certain objectives and management measures pertaining to construction activities. The permit references NCG010000, General Permit to Discharge Stormwater under the NPDES, and states that the Department shall incorporate the applicable requirements into its delegated Erosion and Sediment Control Program for construction activities disturbing one or more acres of land. The Department further incorporates these requirements on all contracted bridge and culvert work at jurisdictional waters, regardless of size. Some of the requirements are, but are not limited to:

- (a) Control project site waste to prevent contamination of surface or ground waters of the state, i.e. from equipment operation/maintenance, construction materials, concrete washout, chemicals, litter, fuels, lubricants, coolants, hydraulic fluids, any other petroleum products, and sanitary waste.
- (b) Inspect erosion and sediment control/stormwater devices and stormwater discharge outfalls at least once every 7 calendar days, twice weekly for construction related *Federal Clean Water Act, Section 303(d)* impaired streams with turbidity violations, and within 24 hours after a significant rainfall event of 0.5 inch that occurs within a 24 hour period.
- (c) Maintain an onsite rain gauge or use the Department's Multi-Sensor Precipitation Estimate website to maintain a daily record of rainfall amounts and dates.
- (d) Maintain erosion and sediment control/stormwater inspection records for review by Department and Regulatory personnel upon request.
- (e) Implement approved reclamation plans on all borrow pits, waste sites and staging areas.
- (f) Maintain a log of turbidity test results as outlined in the Department's Procedure for Monitoring Borrow Pit Discharge.
- (g) Provide secondary containment for bulk storage of liquid materials.
- (h) Provide training for employees concerning general erosion and sediment control/stormwater awareness, the Department's NPDES Stormwater Permit NCS000250 requirements, and the applicable requirements of the *General Permit*, NCG010000.
- (i) Report violations of the NPDES permit to the Engineer immediately who will notify the Division of Water Quality Regional Office within 24 hours of becoming aware of the violation.
- (3) Quality Control Program Maintain a quality control program to control erosion, prevent sedimentation and follow provisions/conditions of permits. The quality control program shall:
  - (a) Follow permit requirements related to the Contractor and subcontractors' construction activities.
  - (b) Ensure that all operators and subcontractors on site have the proper erosion and sediment control/stormwater certification.
  - (c) Notify the Engineer when the required certified erosion and sediment control/stormwater personnel are not available on the job site when needed.
  - (d) Conduct the inspections required by the NPDES permit.
  - (e) Take corrective actions in the proper timeframe as required by the NPDES permit for problem areas identified during the NPDES inspections.
  - (f) Incorporate erosion control into the work in a timely manner and stabilize disturbed areas with mulch/seed or vegetative cover on a section-by-section basis.

- (g) Use flocculants approved by state regulatory authorities where appropriate and where required for turbidity and sedimentation reduction.
- (h) Ensure proper installation and maintenance of temporary erosion and sediment control devices.
- (i) Remove temporary erosion or sediment control devices when they are no longer necessary as agreed upon by the Engineer.
- (j) The Contractor's quality control and inspection procedures shall be subject to review by the Engineer. Maintain NPDES inspection records and make records available at all times for verification by the Engineer.
- (B) Certified Foreman At least one Certified Foreman shall be onsite for each type of work listed herein during the respective construction activities to control erosion, prevent sedimentation and follow permit provisions:
  - (1) Foreman in charge of grading activities
  - (2) Foreman in charge of bridge or culvert construction over jurisdictional areas
  - (3) Foreman in charge of utility activities

The Contractor may request to use the same person as the Level II Supervisor and Level II Foreman. This person shall be onsite whenever construction activities as described above are taking place. This request shall be approved by the Engineer prior to work beginning.

The Contractor may request to name a single Level II Foreman to oversee multiple construction activities on small bridge or culvert replacement projects. This request shall be approved by the Engineer prior to work beginning.

- (C) *Certified Installers* Provide at least one onsite, Level I Certified Installer for each of the following erosion and sediment control/stormwater crew:
  - (1) Seeding and Mulching
  - (2) Temporary Seeding
  - (3) Temporary Mulching
  - (4) Sodding
  - (5) Silt fence or other perimeter erosion/sediment control device installations
  - (6) Erosion control blanket installation
  - (7) Hydraulic tackifier installation
  - (8) Turbidity curtain installation
  - (9) Rock ditch check/sediment dam installation
  - (10) Ditch liner/matting installation
  - (11) Inlet protection
  - (12) Riprap placement
  - (13) Stormwater BMP installations (such as but not limited to level spreaders, retention/detention devices)
  - (14) Pipe installations within jurisdictional areas

If a Level I *Certified Installer* is not onsite, the Contractor may substitute a Level II Foreman for a Level I Installer, provided the Level II Foreman is not tasked to another crew requiring Level II Foreman oversight.

(D) *Certified Designer* - Include the certification number of the Level III-B Certified Designer on the erosion and sediment control/stormwater component of all reclamation plans and if applicable, the certification number of the Level III-A Certified Designer on the design of the project erosion and sediment control/stormwater plan.

# **Preconstruction Meeting**

Furnish the names of the *Certified Erosion and Sediment Control/Stormwater Supervisor*, *Certified Foremen*, *Certified Installers* and *Certified Designer* and notify the Engineer of changes in certified personnel over the life of the contract within 2 days of change.

#### **Ethical Responsibility**

Any company performing work for the North Carolina Department of Transportation has the ethical responsibility to fully disclose any reprimand or dismissal of an employee resulting from improper testing or falsification of records.

#### **Revocation or Suspension of Certification**

Upon recommendation of the Chief Engineer to the certification entity, certification for *Supervisor*, *Certified Foremen*, *Certified Installers* and *Certified Designer* may be revoked or suspended with the issuance of an *Immediate Corrective Action (ICA)*, *Notice of Violation (NOV)*, or *Cease and Desist Order* for erosion and sediment control/stormwater related issues.

The Chief Engineer may recommend suspension or permanent revocation of certification due to the following:

- (A) Failure to adequately perform the duties as defined within this certification provision.
- (B) Issuance of an ICA, NOV, or Cease and Desist Order.
- (C) Failure to fully perform environmental commitments as detailed within the permit conditions and specifications.
- (D) Demonstration of erroneous documentation or reporting techniques.
- (E) Cheating or copying another candidate's work on an examination.
- (F) Intentional falsification of records.
- (G) Directing a subordinate under direct or indirect supervision to perform any of the above actions.
- (H) Dismissal from a company for any of the above reasons.
- (I) Suspension or revocation of one's certification by another entity.

Suspension or revocation of a certification will be sent by certified mail to the certificant and the Corporate Head of the company that employs the certificant.

A certificant has the right to appeal any adverse action which results in suspension or permanent revocation of certification by responding, in writing, to the Chief Engineer within 10 calendar days after receiving notice of the proposed adverse action.

Chief Engineer 1537 Mail Service Center Raleigh, NC 27699-1537

Failure to appeal within 10 calendar days will result in the proposed adverse action becoming effective on the date specified on the certified notice. Failure to appeal within the time specified will result in a waiver of all future appeal rights regarding the adverse action taken. The certificant will not be allowed to perform duties associated with the certification during the appeal process.

The Chief Engineer will hear the appeal and make a decision within 7 days of hearing the appeal. Decision of the Chief Engineer will be final and will be made in writing to the certificant.

If a certification is temporarily suspended, the certificant shall pass any applicable written examination and any proficiency examination, at the conclusion of the specified suspension period, prior to having the certification reinstated.

#### **Measurement and Payment**

Certified Erosion and Sediment Control/Stormwater Supervisor, Certified Foremen, Certified Installers and Certified Designer will be incidental to the project for which no direct compensation will be made.

# EROSION, SILTATION, AND POLLUTION CONTROL

The Contractor shall exercise every reasonable precaution and take all necessary measures throughout the life of the project to prevent erosion, siltation, and pollution in accordance with Section 107-12 of the *Standard Specifications*. Silt fence and erosion control measures shall be installed in accordance with the Section 1605 of the *Standard Specifications*, and in locations directed by the Engineer or his representative.

#### ENVIRONMENTAL STEWARDSHIP AND PERFORMANCE OF EROSION CONTROL

The Contractor shall perform all aspects of his / her work related to the project in a manner that is considerate of the environment and is representative of the Department's commitment to environmental stewardship. The Contractor shall take initiative to adhere to the erosion control plans and all provisions stated in the related permits. The Contractor shall provide additional measures above and beyond the plans and provisions when required to protect the environment. The Contractor shall also comply with all other general requirements of the regulatory agencies. These include but are not limited to the US Army Corps of Engineers, NC Wildlife Resources Commission (comments included in the Corps permit), NC Department of Environment and

Natural Resources – Land Quality Section, NC Department of Environment and Natural Resources – Water Quality Section, etc. <u>It is the responsibility of the Contractor to be familiar and to comply with the contract permit provisions, erosion control plan, general requirements of the agencies, and all laws pertaining to land disturbing activities.</u>

Erosion Control Devices shall be installed and maintained in a timely manner throughout the life of the project. Such devices shall be constructed and maintained by the end of each workday. Modifications to the Erosion Control Plan shall be approved by the Engineer or his representative. Prior to grubbing and / or grade-work, erosion control devices shall be installed to prevent any loss of sedimentation into streams or outside the perimeter of the project. Inlet and outlet protection for pipes shall be constructed as part of the pipe installation in a continuous manner. Erosion control devices should not be placed in the stream itself.

In the event the Contractor does not comply with the erosion control plan and environmental conditions of the contract, **liquidated damages of \$1,000.00 per day** shall be imposed until the corrective action is taken in order to meet the requirements. These damages shall pertain to any permit condition and erosion control measure that is not installed and maintained in accordance with the erosion control plan, permit conditions, project special provisions, *Standard Specifications*, and directions provided by the Engineer or his/her representative. Disregard for the environment by the Contractor shall also subject the Contractor to such damages.

In the event that a Notice of Violation is issued for the project by NCDENR, the Contractor shall be assessed a single amount of \$5,000.00. If additional Violations are issued on the same project, liquidated damages of \$10,000.00 per occurrence will be imposed on the Contractor. Subsequent to the issuance of a NOV, the Contractor shall work in a continuous manner to comply with the required corrective action by the deadline given by the issuing agency. If the corrective actions are not completed by the required date of compliance, the Department shall impose additional liquidated damages of \$1,000.00 per day. All damages stated above shall also apply to the issuance of an Immediate Corrective Action (ICA) by the Department.

All liquidated damages described above shall be deducted from monies due to the Contractor. The Contractor shall also comply with Article 107-12 and Division 16 of the *Standard Specifications*.

# ENVIRONMENTAL NOTES TO CONTRACTOR

- 1. Environmental stewardship and timely performance of erosion control shall be expected of the Contractor on this project.
- 2. The Contractor may be subject to fines imposed by the Department for violations and / or non-compliance related to environmental permits and erosion control issues (see special provisions).
- 3. Pipe installation shall include immediate protection of the inlet and outlet with appropriate erosion control measures as part of the pipe installation process by the end of each day.
- 4. Installation of all pipe(s) shall be completed in a continuous manner.
- 5. Vegetation shall not be disturbed beyond the limits of construction without approval by the Engineer.

- 6. Any ground disturbance beyond areas protected by installed erosion control devices shall be protected immediately no exceptions. This may require hand seeding and mulching in some cases.
- 7. Temporary erosion control measures to protect areas of work shall be installed by end of each day, regardless the construction stage of a particular operation.
- 8. Erosion control measures installed after the fact is not acceptable practice.
- 9. Ditches that are not to final grade shall have the necessary temporary erosion control measures installed by the end of the day, including any basins and rock checks.
- 10. Filter stone and Class B Rip Rap for erosion control shall be installed at any location where runoff leaves the project. Class B Rip Rap only is not acceptable.
- 11. Blasting shall be controlled with appropriate measures to prevent fly rock and loss of material into rivers and streams and outside the limits of construction. Blasting mats will be required. Blasting shall not take place without the presence of an Inspector. The Contractor shall provide a 24-hour notice prior to blasting in a particular area. The Contractor shall be responsible for any and all damages that may occur from blasting, including any fines. The Contractor shall consider and implement when feasible alternative methods to blasting around environmentally sensitive areas.
- 12. No disturbed area shall be left unprotected from sediment runoff by the end of each day.
- 13. Grubbing shall not take place in an area until immediately before grading operations are to commence in that particular area.
- 14. The Contractor is responsible for being familiar with the conditions of the environmental permits.
- 15. The Contractor must comply with all provisions of the contract, standard specifications and drawings, and best management practices for bridge demolition and erosion control.
- 16. The presence of the Engineer or Inspector shall in no way lessen the Contractor's responsibility for compliance with the permits, conformity with erosion control, and protection of the environment. Should the Engineer or Inspector fail to point out work that is not in compliance for any reason, it shall in no way prevent later rejection or correction to the unsatisfactory materials or work when discovered.

#### STABILIAZATION REQUIREMENTS

Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective August 3, 2011 issued by the North Carolina Department of Environment and Natural Resources Division of Water Quality. Temporary or permanent ground cover stabilization shall occur within 7 calendar days from the last land-disturbing activity, with the following exceptions in which temporary or permanent ground cover shall be provided in 14 calendar days from the last land-disturbing activity:

- Slopes between 2:1 and 3:1, with a slope length of 10 ft. or less
- Slopes 3:1 or flatter, with a slope of length of 50 ft. or less
- Slopes 4:1 or flatter

The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A NCAC 04A.0105 (25). Temporary and permanent

ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed.

# PERMANENT VEGETATION ESTABLISHMENT

Establish a permanent stand of the vegetation mixture shown in the contract. During the period between initial vegetation planting and final project acceptance, perform all work necessary to establish permanent vegetation on all erodible areas within the project limits, as well as, in borrow and waste pits. This work shall include erosion control device maintenance and installation, repair seeding and mulching, supplemental seeding and mulching, mowing, and fertilizer topdressing, as directed. All work shall be performed in accordance with the applicable section of the 2012 Standard Specifications. All work required for initial vegetation planting shall be performed as a part of the work necessary for the completion and acceptance of the Intermediate Contract Time (ICT). Between the time of ICT and Final Project acceptance, or otherwise referred to as the vegetation establishment period, the Department will be responsible for preparing the required National Pollutant Discharge Elimination System (NPDES) inspection records.

Once the Engineer has determined that the permanent vegetation establishment requirement has been achieved at an 80% vegetation density (the amount of established vegetation per given area to stabilize the soil) and no erodible areas exist within the project limits, the Contractor will be notified to remove the remaining erosion control devices that are no longer needed. The Contractor will be responsible for, and shall correct any areas disturbed by operations performed in permanent vegetation establishment and the removal of temporary erosion control measures, whether occurring prior to or after placing traffic on the project.

Payment for Response for Erosion Control, Seeding and Mulching, Repair Seeding, Supplemental Seeding, Mowing, Fertilizer Topdressing, Silt Excavation, and Stone for Erosion Control will be made at contract unit prices for the affected items. Work required that is not represented by contract line items will be paid in accordance with Articles 104-7 or 104-3 of the 2012 Standard Specifications. No additional compensation will be made for maintenance and removal of temporary erosion control items.

# **SEEDING AND MULCHING**

(West)

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

#### Shoulder and Median Areas

August 1 - June 1		May 1 - Sep	tember 1
20#	Kentucky Bluegrass	20#	Kentucky Bluegrass
75#	Hard Fescue	75#	Hard Fescue
25#	Rye Grain	10#	German or Browntop Millet
500#	Fertilizer	500#	Fertilizer
4000#	Limestone	4000#	Limestone

# Areas Beyond the Mowing Pattern, Waste and Borrow Areas

August 1 - June 1		<b>May 1 - S</b>	September 1
100#	Tall Fescue	100#	Tall Fescue
15#	Kentucky Bluegrass	15#	Kentucky Bluegrass
30#	Hard Fescue	30#	Hard Fescue
25#	Rye Grain	10#	German or Browntop Millet
500#	Fertilizer	500#	Fertilizer
4000#	Limestone	4000#	Limestone

# Approved Tall Fescue Cultivars

2 <sup>nd</sup> Millennium Avenger Barlexas	Duster Endeavor Escalade	Magellan Masterpiece Matador	Rendition Scorpion Shelby
Barlexas II	Falcon II, III, IV & V	Matador GT	Signia
Barrera	Fidelity	Millennium	Silverstar
Barrington	Finesse II	Montauk	Southern Choice II
Biltmore	Firebird	Mustang 3	Stetson
Bingo	Focus	Olympic Gold	Tarheel
Bravo	Grande II	Padre	Titan Ltd
Cayenne	Greenkeeper	Paraiso	Titanium
Chapel Hill	Greystone	Picasso	Tomahawk
Chesapeake	Inferno	Piedmont	Tacer
Constitution	Justice	Pure Gold	Trooper
Chipper	Jaguar 3	Prospect	Turbo
Coronado	Kalahari	Quest	Ultimate
Coyote	Kentucky 31	Rebel Exeda	Watchdog
Davinci	Kitty Hawk	Rebel Sentry	Wolfpack
Dynasty	Kitty Hawk 2000	Regiment II	
Dominion	Lexington	Rembrandt	

# Approved Kentucky Bluegrass Cultivars

Alpine Apollo Arcadia Arrow Award	Bariris Bedazzled Bordeaux Champagne Chicago II Approved Ha	Envicta Impact Kenblue Midnight Midnight II ard Fescue Cultivars	Rugby Rugby II Showcase Sonoma
Chariot Firefly Heron Minotaur	Nordic Oxford Reliant II Reliant IV	Rhino Scaldis II Spartan II Stonehenge	Warwick

On cut and fill slopes 2:1 or steeper add 20# Sericea Lespedeza January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

# NCDOT GENERAL SEED SPECIFICATION FOR SEED QUALITY

Seed shall be sampled and tested by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory. When said samples are collected, the vendor shall supply an independent laboratory report for each lot to be tested. Results from seed so sampled shall be final. Seed not meeting the specifications shall be rejected by the Department of Transportation and shall not be delivered to North Carolina Department of Transportation warehouses. If seed has been delivered it shall be available for pickup and replacement at the supplier's expense.

Any re-labeling required by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory, that would cause the label to reflect as otherwise specified herein shall be rejected by the North Carolina Department of Transportation.

Seed shall be free from seeds of the noxious weeds Johnsongrass, Balloonvine, Jimsonweed, Witchweed, Itchgrass, Serrated Tussock, Showy Crotalaria, Smooth Crotalaria, Sicklepod, Sandbur, Wild Onion, and Wild Garlic. Seed shall not be labeled with the above weed species on the seed analysis label. Tolerances as applied by the Association of Official Seed Analysts will NOT be allowed for the above noxious weeds except for Wild Onion and Wild Garlic.

Tolerances established by the Association of Official Seed Analysts will generally be recognized. However, for the purpose of figuring pure live seed, the found pure seed and found germination percentages as reported by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory will be used. Allowances, as established by the NCDOT, will be recognized for minimum pure live seed as listed on the following pages.

The specifications for restricted noxious weed seed refers to the number per pound as follows:

Restricted Noxious	Limitations per	Restricted Noxious	Limitations per
Weed	Lb. Of Seed	Weed	Lb. of Seed
Blessed Thistle	4 seeds	Cornflower (Ragged Robin)	27 seeds
Cocklebur	4 seeds	Texas Panicum	27 seeds
Spurred Anoda	4 seeds	Bracted Plantain	54 seeds
Velvetleaf	4 seeds	Buckhorn Plantain	54 seeds
Morning-glory	8 seeds	Broadleaf Dock	54 seeds
Corn Cockle	10 seeds	Curly Dock	54 seeds
Wild Radish	12 seeds	Dodder	54 seeds
Purple Nutsedge	27 seeds	Giant Foxtail	54 seeds
Yellow Nutsedge	27 seeds	Horsenettle	54 seeds
Canada Thistle	27 seeds	Quackgrass	54 seeds
Field Bindweed	27 seeds	Wild Mustard	54 seeds
Hedge Bindweed	27 seeds		

Seed of Pensacola Bahiagrass shall not contain more than 7% inert matter, Kentucky Bluegrass, Centipede and Fine or Hard Fescue shall not contain more than 5% inert matter whereas a maximum of 2% inert matter will be allowed on all other kinds of seed. In addition, all seed shall not contain more than 2% other crop seed nor more than 1% total weed seed. The germination rate as tested by the North Carolina Department of Agriculture shall not fall below 70%, which includes both dormant and hard seed. Seed shall be labeled with not more than 7%, 5% or 2% inert matter (according to above specifications), 2% other crop seed and 1% total weed seed.

Exceptions may be made for minimum pure live seed allowances when cases of seed variety shortages are verified. Pure live seed percentages will be applied in a verified shortage situation. Those purchase orders of deficient seed lots will be credited with the percentage that the seed is deficient.

#### FURTHER SPECIFICATIONS FOR EACH SEED GROUP ARE GIVEN BELOW:

Minimum 85% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 83% pure live seed will not be approved.

Sericea Lespedeza Oats (seeds)

Minimum 80% pure live seed; maximum 1% total weed seed; maximum 2% total other crop; maximum 144 restricted noxious weed seed per pound. Seed less than 78% pure live seed will not be approved.

Tall Fescue (all approved varieties)

Kobe Lespedeza

Bermudagrass

Browntop Millet

Korean Lespedeza German Millet - Strain R Weeping Lovegrass Clover - Red/White/Crimson

Carpetgrass

Minimum 78% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 76% pure live seed will not be approved.

# Common or Sweet Sundangrass

Minimum 76% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 74% pure live seed will not be approved.

Rye (grain; all varieties) Kentucky Bluegrass (all approved varieties) Hard Fescue (all approved varieties) Shrub (bicolor) Lespedeza Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 70% pure live seed will not be approved.

Centipedegrass Japanese Millet Crownvetch Reed Canary Grass

Pensacola Bahiagrass Zoysia

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 5% inert matter; maximum 144 restricted noxious weed seed per pound.

Barnyard Grass Bristly Locust Birdsfoot Trefoil
Big Bluestem Indiangrass Orchardgrass

Little Bluestem Switchgrass Yellow Blossom Sweet Clover

#### PLANT AND PEST QUARANTINES

(Imported Fire Ant, Gypsy Moth, Witchweed, and Other Noxious Weeds)

# Within quarantined area

This project may be within a county regulated for plant and/or pests. If the project or any part of the Contractor's operations is located within a quarantined area, thoroughly clean all equipment prior to moving out of the quarantined area. Comply with federal/state regulations by obtaining a certificate or limited permit for any regulated article moving from the quarantined area.

#### **Originating in a Quarantined County**

Obtain a certificate or limited permit issued by the N.C. Department of Agriculture/United States Department of Agriculture. Have the certificate or limited permit accompany the article when it arrives at the project site.

#### Contact

Contact the N.C. Department of Agriculture/United States Department of Agriculture at 1-800-206-9333, 919-733-6932, or <a href="http://www.ncagr.gov/plantind/">http://www.ncagr.gov/plantind/</a> to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

# **Regulated Articles Include**

- 1. Soil, sand, gravel, compost, peat, humus, muck, and decomposed manure, separately or with other articles. This includes movement of articles listed above that may be associated with cut/waste, ditch pulling, and shoulder cutting.
- 2. Plants with roots including grass sod.
- 3. Plant crowns and roots.
- 4. Bulbs, corms, rhizomes, and tubers of ornamental plants.

- 5. Hay, straw, fodder, and plant litter of any kind.
- 6. Clearing and grubbing debris.
- 7. Used agricultural cultivating and harvesting equipment.
- 8. Used earth-moving equipment.
- 9. Any other products, articles, or means of conveyance, of any character, if determined by an inspector to present a hazard of spreading imported fire ant, gypsy moth, witchweed or other noxious weeds.

#### **TEMPORARY SEEDING**

Fertilizer shall be the same analysis as specified for *Seeding and Mulching* and applied at the rate of 400 pounds and seeded at the rate of 50 pounds per acre. German Millet, or Browntop Millet shall be used in summer months and rye grain during the remainder of the year. The Engineer will determine the exact dates for using each kind of seed.

#### FERTILIZER TOPDRESSING

Fertilizer used for topdressing shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis and as directed.

# **SUPPLEMENTAL SEEDING**

The kinds of seed and proportions shall be the same as specified for *Seeding and Mulching*, and the rate of application may vary from 25# to 75# per acre. The actual rate per acre will be determined prior to the time of topdressing and the Contractor will be notified in writing of the rate per acre, total quantity needed, and areas on which to apply the supplemental seed. Minimum tillage equipment, consisting of a sod seeder shall be used for incorporating seed into the soil as to prevent disturbance of existing vegetation. A clodbuster (ball and chain) may be used where degree of slope prevents the use of a sod seeder.

#### MINIMIZE REMOVAL OF VEGETATION

The Contractor shall minimize removal of vegetation at stream banks and disturbed areas within the project limits as directed.

# **STOCKPILE AREAS**

The Contractor shall install and maintain erosion control devices sufficient to contain sediment around any erodible material stockpile areas as directed.

# ACCESS AND HAUL ROADS

At the end of each working day, the Contractor shall install or re-establish temporary diversions or earth berms across access/haul roads to direct runoff into sediment devices. Silt fence sections that are temporarily removed shall be reinstalled across access/haul roads at the end of each working day.

# WASTE AND BORROW SOURCES

Payment for temporary erosion control measures, except those made necessary by the Contractor's own negligence or for his own convenience, will be paid for at the appropriate contract unit price for the devices or measures utilized in borrow sources and waste areas.

No additional payment will be made for erosion control devices or permanent seeding and mulching in any commercial borrow or waste pit. All erosion and sediment control practices that may be required on a commercial borrow or waste site will be done at the Contractor's expense.

#### **ERRATA**

Revise the 2012 Standard Specifications as follows:

#### Division 2

Page 2-7, line 31, Article 215-2 Construction Methods, replace "Article 107-26" with "Article 107-25".

Page 2-17, Article 226-3, Measurement and Payment, line 2, delete "pipe culverts,".

Page 2-20, Subarticle 230-4(B), Contractor Furnished Sources, change references as follows: Line 1, replace "(4) Buffer Zone" with "(c) Buffer Zone"; Line 12, replace "(5) Evaluation for Potential Wetlands and Endangered Species" with "(d) Evaluation for Potential Wetlands and Endangered Species"; and Line 33, replace "(6) Approval" with "(4) Approval".

#### **Division 3**

Page 3-1, after line 15, Article 300-2 Materials, replace "1032-9(F)" with "1032-6(F)".

#### **Division 4**

Page 4-77, line 27, Subarticle 452-3(C) Concrete Coping, replace "sheet pile" with "reinforcement".

#### Division 6

Page 6-7, line 31, Article 609-3 Field Verification of Mixture and Job Mix Formula Adjustments, replace "30" with "45".

Page 6-10, line 42, Subarticle 609-6(C)(2), replace "Subarticle 609-6(E)" with "Subarticle 609-6(D)".

**Page 6-11, Table 609-1 Control Limits,** replace "Max. Spec. Limit" for the Target Source of  $P_{0.075}/P_{be}$  Ratio with "1.0".

**Page 6-40, Article 650-2 Materials,** replace "Subarticle 1012-1(F)" with "Subarticle 1012-1(E)"

#### **Division 8**

Page 8-23, line 10, Article 838-2 Materials, replace "Portland Cement Concrete, Class B" with "Portland Cement Concrete, Class A".

#### **Division 12**

Page 12-7, Table 1205-3, add "FOR THERMOPLASTIC" to the end of the title.

Page 12-8, Subarticle 1205-5(B), line 13, replace "Table 1205-2" with "Table 1205-4".

Page 12-8, Table 1205-4 and 1205-5, replace "THERMOPLASTIC" in the title of these tables with "POLYUREA".

Page 12-9, Subarticle 1205-6(B), line 21, replace "Table 1205-4" with "Table 1205-6".

Page 12-11, Subarticle 1205-8(C), line 25, replace "Table 1205-5" with "Table 1205-7".

#### **Division 15**

**Page 15-4, Subarticle 1505-3(F) Backfilling, line 26,** replace "Subarticle 235-4(C)" with "Subarticle 235-3(C)".

**Page 15-6, Subarticle 1510-3(B), after line 21,** replace the allowable leakage formula with the following:  $W = LD\sqrt{P} \div 148,000$ 

Page 15-6, Subarticle 1510-3(B), line 32, delete "may be performed concurrently or" and replace with "shall be performed".

**Page 15-17, Subarticle 1540-3(E), line 27,** delete "Type 1".

#### **Division 17**

Page 17-26, line 42, Subarticle 1731-3(D) Termination and Splicing within Interconnect Center, delete this subarticle.

Revise the 2012 Roadway Standard Drawings as follows:

**1633.01 Sheet 1 of 1, English Standard Drawing for Matting Installation,** replace "1633.01" with "1631.01".

# **MINIMUM WAGES**

**FEDERAL** The Fair Labor Standards Act provides that with certain exceptions every employer shall pay wages at the rate of not less than SEVEN DOLLARS AND TWENTY-FIVE CENTS (\$7.25) per hour.

STATE The North Carolina Minimum Wage Act provides that every employer shall pay to each of his employees' wages at a rate of not less than SEVEN DOLLARS AND TWENTY-FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all skilled labor employed on this contract shall be SEVEN DOLLARS AND TWENTY-FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all intermediate labor employed on this contract shall be SEVEN DOLLARS AND TWENTY-FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all unskilled labor on this contract shall be SEVEN DOLLARS AND TWENTY-FIVE CENTS (\$7.25) per hour.

This determination of the intent of the application of this act to the contract on this project is the responsibility of the Contractor.

The Contractor shall have no claim against the Department of Transportation for any changes in the minimum wage laws, State or Federal. It is the responsibility of the Contractor to keep himself fully informed of all Federal and State Laws affecting his contract.

# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BID FORM

WBS Element: <u>Various</u> Contract Number: <u>11-01-726</u>
Description: Installation of Various Erosion Control Measures upon request in Alleghany, Surry and Yadkin

**Counties** 

PAGE 1 OF 2

						111	GE I OF Z
LINE	ITEM NUMBER	SECT	DESCRIPTION	QUAN	UNIT	UNIT BID	AMOUNT BID
1	0000915000-N	SP	Mobilization - Emergency	10	EA		
2	600000000-Е	1605	Temporary Silt Fence	2,000	LF		
3	6012000000-Е	1610	Sediment Control Stone	250	TON		
4	6015000000-E	1615	Temporary Mulching	3	ACR		
5	6018000000-Е	1620	Seed for Temp Seeding	100	LB		
6	6024000000-E	1622	Temporary Slope Drains	200	LF		
7	6030000000-E	1630	Silt Excavation	500	CY		
8	6036000000-E	1631	Matting for Erosion Control	3,000	SY		
9	6037000000-E	SP	Coir Fiber Mat	500	SY		
10	6038000000-Е	SP	Permanent Soil Reinforcement Mat	2,000	SY		
11	6042000000-Е	1632	1/4" Hardware Cloth	150	LF		
12	6071010000-E	SP	Wattles	500	LF		
13	6071020000-Е	SP	Polyacrylamide (PAM)	50	LB		
14	6071030000-E	1640	Coir Fiber Baffles	500	LF		
15	6084000000-Е	1660	Seeding & Mulching	35	AC		
16	609000000-Е	1661	Seed for Repair Seeding	200	LB		
17	6093000000-Е	1661	Fertilizer for Repair Seeding	1	TON		
18	6096000000-Е	1662	Seed for Supplemental Seeding	700	LB		
19	6108000000-Е	1665	Fertilizer Topdressing	3	TON		
20	8594000000-E	876	Rip Rap, Class B	1,000	TON		
21	8629000000-E	1610	Stone for Erosion Control, Class B	800	TON		
22	4960000000-N	SP	Traffic Control, Full Lane Closure Divided Hwy	10	EA		

\*TRANSFER TOTAL TO PAGE 2\*

# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **BID FORM**

WBS Element: <u>Various</u> Contract Number: <u>11-01-726</u> Description: Installation of Various Erosion Control Measures upon request in Alleghany, Surry and Yadkin
Counties PAGE 2 OF 2
TOTAL BID FOR PROJECT:
<u> </u>
THIS SECTION TO BE COMPLETED BY NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
This bid has been reviewed in accordance with Article 103-1 of the Standard Specifications for Roads and Structures 2012.
Reviewed by(date)

#### NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

#### **CORPORATION**

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

d
u
ent/Vice President/Assistant Vice Presiden Select appropriate title
Print or type Signer's name
CORPORATE SEAL
ΓARIZED
NOTARY SEAL

#### NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

#### **PARTNERSHIP**

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

*N.C.G.S.* § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

	Full Name of Pa	artnership
	Address as Pred	qualified
	By	
Signature of Witness		Signature of Partner
Print or type Signer's nar		Print or type Signer's name
AFF	FIDAVIT MUST B	E NOTARIZED
		E NOTARIZED
oscribed and sworn to before me this	the	E NOTARIZED
AFF bscribed and sworn to before me this day of	the	E NOTARIZED
bscribed and sworn to before me this	the	E NOTARIZED NOTARY SEAL
oscribed and sworn to before me this day of	the 0	
bscribed and sworn to before me this day of	the 0 County.	

#### NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

#### LIMITED LIABILITY COMPANY

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

	Full Name of Firm	n
	Address as Prequalit	fied
	Signature of Manager	
Signature of Witness		Individually
Print or type Signer's name	_	Print or type Signer's name
A ******		OM A DIZED
AFFII	DAVIT MUST BE N	OTARIZED
Subscribed and sworn to before me this the	9	
day of, 20_		
Signature of Notary Public		NOTARY SEAL
ofCc	ounty.	
State of		
My Commission Expires		

#### NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

### **JOINT VENTURE (2) or (3)**

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating N.C.G.S. § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

#### SIGNATURE OF CONTRACTOR

Instructions: **2 Joint Venturers** Fill in lines (1), (2) and (3) and execute. **3 Joint Venturers** Fill in lines (1), (2), (3) and (4) and execute. On Line (1), fill in the name of the Joint Venture Company. On Line (2), fill in the name of one of the joint venturers and execute below in the appropriate manner. On Line (3), print or type the name of the other joint venturer and execute below in the appropriate manner. On Line (4), fill in the name of the third joint venturer, if applicable and execute below in the appropriate manner.

(1)			
	Name of Joint Venture		
(2)	Name of Contractor		
	Address as Prequalified	l	
Signature of Witness or Attest	Ву	S	ignature of Contractor
Print or type Signer's name		Pri	nt or type Signer's name
If Corporation, affix Corporate Seal	and		
(3)	Name of Contractor		
	Address as Prequalified	i	
Signature of Witness or Attest	Ву	S	ignature of Contractor
Print or type Signer's name		Prii	nt or type Signer's name
If Corporation, affix Corporate Seal (4)	and		
(4)	Name of Contractor (for 3 Joint V	enture only)	
	Address as Prequalified	i	
Signature of Witness or Attest	Ву	S	ignature of Contractor
Print or type Signer's name		Pri	nt or type Signer's name
If Corporation, affix Corporate Seal  NOTARY SEAL  Affidavit must be notarized for Line (2)  Subscribed and sworn to before me this the  day of	NOTARY SEAL Affidavit must be notarized for L Subscribed and sworn to before a day of	ne this the	NOTARY SEAL Affidavit must be notarized for Line (4) Subscribed and sworn to before me this the day of, 20
ofCounty. State of	Signature of Notary Public ofState of	County.	Signature of Notary Public ofCounty. State of
My Commission Evnirus:	My Commission Evniras		My Commission Evniras

#### NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

#### INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Name of Contractor		
	Individual Name	
Trading and doing business as		
	Full name of Firm	
Address as F	Prequalified	
Signature of Witness	Signature of Contractor, Individually	
Print or type Signer's name	Print or type Signer's name	
AFFIDAVIT MUST	BE NOTARIZED	
Subscribed and sworn to before me this the		
day of, 20		
Signature of Notary Public	NOTARY SEAL	
ofCounty.		
State of		
My Commission Expires:		

#### NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

#### INDIVIDUAL DOING BUSINESS IN HIS OWN NAME

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

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Name of Contractor				
Print or type Individual Name				
	Address as Prequalified			
	Signature of Contractor, Individually			
	Print or type Signer's name			
Signature of Witness				
Print or type Signer's name				
AFFIDA	AVIT MUST BE NOTARIZED			
Subscribed and sworn to before me this the				
day of	·			
Signature of Notary Public	NOTARY SEAL			
ofCour	nty.			
State of	<u> </u>			
My Commission Expires:				

# **DEBARMENT CERTIFICATION**

#### Conditions for certification:

- 1. The prequalified bidder shall provide immediate written notice to the Department if at any time the bidder learns that his certification was erroneous when he submitted his debarment certification or explanation filed with the Department, or has become erroneous because of changed circumstances.
- 2. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this provision, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. A copy of the Federal Rules requiring this certification and detailing the definitions and coverages may be obtained from the Contract Officer of the Department.
- **3.** The prequalified bidder agrees by submitting this form, that he will not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in NCDOT contracts, unless authorized by the Department.
- **4.** For Federal Aid projects, the prequalified bidder further agrees that by submitting this form he will include the Federal-Aid Provision titled *Required Contract Provisions Federal-Aid Construction Contract (Form FHWA PR 1273)* provided by the Department, without subsequent modification, in all lower tier covered transactions.
- 5. The prequalified bidder may rely upon a certification of a participant in a lower tier covered transaction that he is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless he knows that the certification is erroneous. The bidder may decide the method and frequency by which he will determine the eligibility of his subcontractors.
- **6.** Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this provision. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- **7.** Except as authorized in paragraph 6 herein, the Department may terminate any contract if the bidder knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available by the Federal Government.

# **DEBARMENT CERTIFICATION**

The prequalified bidder certifies to the best of his knowledge and belief, that he and his principals:

- **a.** Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- **b.** Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records; making false statements; or receiving stolen property;
- **c.** Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph b. of this certification; and
- **d.** Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- **e.** Will submit a revised Debarment Certification immediately if his status changes and will show in his bid proposal an explanation for the change in status.

If the prequalified bidder cannot certify that he is not debarred, he shall provide an explanation with this submittal. An explanation will not necessarily result in denial of participation in a contract.

Failure to submit a non-collusion affidavit and debarment certification will result in the prequalified bidder's bid being considered non-responsive.

$\overline{}$	
	Check here if an explanation is attached to this certification.

<b>Contract No:</b>	11-01-726
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Counties: Alleghany, Surry, Yadkin

ACCEPTED BY THE
DEPARTMENT OF TRANSPORTATION

Contract Officer
 Date

LISTING OF MBE & WBE SUBCONTRACTORS							
				Sheet _	of		
FIRM NAME AND ADDRESS	MBE OR WBE	ITEM NO.	ITEM DESCRIPTION	* AGREED UPON UNIT PRICE	DOLLAR VOL. OF SUBLET ITEM		
COLUMN			*THE DOLLAR VC	LUME SHOWN IN	N THIS		
COLUMN DOLLAR VOLUME OF WB SUBCONTRACTOR WB PERCENTAGE OF TOTAL CONTRACT BID PRICE DOLLAR VOLUME OF MB SUBCONTRACTOR MB PERCENTAGE OF TOTAL CONTRACT BID PRICE		THE PRIME CONTRACTOR. THE DETERMINE THE PE	SHALL BE THE ACTUAL PRICE AGREED UPON BY THE PRIME CONTRACTOR AND THE MB/WB SUB-CONTRACTOR. THESE PRICES WILL BE USED TO DETERMINE THE PERCENTAGES OF MB/WB PARTICIPATION IN THE CONTRACT.				